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Grain Price OUTLOOK

CORN: SMALL CROP MEATS STRONG DEMAND

JANUARY 2007

Darrel Good

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Summary

Corn prices started an uptrend in mid-September, reaching a temporary high in late November. A smaller than expected 2006 U.S. corn crop, large export sales, a rapid increase in ethanol production and a sizeable increase in speculative buying all contributed to the unusual harvest-time rally. Prices moved up another leg in mid-January following the USDA's smaller than expected January estimate of the 2006 crop.

The 2006 U.S. corn crop was estimated at 10.535 billion bushels, 210 million below the November 2006 forecast and 579 million below the September 2006 forecast. With consumption during the 2006-07 marketing year expected to be a record 11.795 billion bushels, year ending stocks are forecast at a meager 717 million bushels, or 3.2 weeks supply at the current rate of consumption. The USDA expects the 2006-07 marketing year average price received by farmers to be in a range of \$3.00 to \$3.40. The first 40 to 50 percent of the crop was likely sold for an average of only about \$2.70.

The main focus of the corn market over the next 7 or 8 months will be the potential size of the 2007 crop. A large increase in acreage is expected, but will not be confirmed until the USDA releases the *Prospective Plantings* report on March 30. Average yield potential will be uncertain through August, likely keeping prices quite volatile. Opportunities to forward price the 2007 crop well above \$3.50 now exist

If high prices persist through February, producers will have the opportunity to purchase crop revenue insurance at levels that will guarantee good returns on the 2007 crop.

"Small" 2006 Crop

In September 2006, the USDA projected the 2006 U.S. average corn yield at 154.7 bushels, the second highest behind the 160.7 bushels of 2004 (Table 1). That forecast declined in October and November and the final estimate of average yield came in at 149.1 bushels, still second highest on record. The November to January decline of 2.1 bushels in the U.S. average yield estimate was the second largest decline of the past 32 years, exceeded only by the 2.4 bushels for the 1993 crop. The largest November to January increase was 2.1 bushels for the 1992 crop. The January yield estimate this year was 5 bushels or more below the November forecast in Kansas, Minnesota, Nebraska, South Dakota, and Wisconsin. The estimate was reduced by 2 bushels in Illinois and Indiana and increased by 3 bushels in Iowa.

The 2006 U.S. corn crop is now estimated at 10.535 billion bushels. That estimate is 579 million less than the 2005 crop, 1.272 billion less than the record crop of 2004, and 579 million below the September 2006 forecast (Table 2). In addition to a lower than expected average yield, the relatively small crop reflected a reduction in corn acres in 2006. Planted acreage totaled only 78.327 million, the smallest since 2001. Acreage exceeded March intentions by 308,000, but was 805,000 less than intentions reported in June (Table 3). Acreage harvested for grain, at 70.648 million, was 4.469 million less than harvested in 2005. Acreage harvested for silage in 2006 was 547,000 above that of 2005, while unharvested acreage was up 470,000. The reduction in corn acreage in 2006 resulted from an incorrect signal given by the market. Soybean prices remained too high relative to corn prices so producers increased soybean acreage and reduced corn acreage. The market failed to recognize the extent of the cost

increase to produce corn relative to the cost to produce soybeans. These incorrect market signals in terms of resource allocation may become more frequent as nontraditional traders dominate the corn and soybean futures market.

Exports on the Rise

U.S. corn exports were relatively weak from the second quarter of the 2004-05 marketing year through the first quarter of the 2005-06 marketing year (Table 4). Since then, however, exports have been very large and shipments for the 2005-06 marketing year were the largest in 10 years. Exports were also large in the first quarter of the 2006-07 marketing year. At 592 million bushels, shipments for that quarter were the largest in 11 years (Table 4). Shipments remained large through January 18, at which time cumulative exports for the marketing year exceeded those of a year ago by 135 million bushels, or about 19 percent. The large year over year increase reflected larger shipments to South Korea (up 27.4 percent), and Mexico (up 52 percent).

For the entire 2006-07 marketing year, the USDA projects U.S. corn exports at 2.25 billion bushels, the largest annual shipments in 17 years. To reach that level, exports during the final three quarters of the year will have to total 1.658 billion bushels, 12 million less than during the same period last year. As of January 11, 2007, the USDA reported that 482 million bushels of U.S. corn had been sold for export during the current marketing year, but not yet shipped. Unshipped sales on the same date last year totaled only 243 million bushels. On the surface, it appears that exports should easily reach the USDA projection. Uncertainty centers around how much the higher corn prices may influence new sales. It is possible that importers purchased U.S. corn early in the year in anticipation of higher prices and that new sales will now decline dramatically. Shipments were very small during the first two weeks of January 2007, falling below the weekly figures of a year earlier. Shipments will need to average 43 million bushels per week from mid-January 2007 through August 2007 to reach the USDA projection. Shipments through the first 20 weeks of the marketing year averaged 42 million bushels. For now, we are using the USDA projection of exports in the 2006-07 balance sheet (Table 5).

Feed and Residual Use to Decline

Stocks of U.S. corn on December 1, 2006 totaled 8.93 billion bushels, 885 million (9 percent) smaller than the inventory of a year ago. That figure implies that a record 3.573 billion bushels of U.S. corn were consumed during the first quarter of the 2006-07 marketing year. Based on estimates of export and domestic processing uses, totaling 1.4 billion, apparent feed and residual use of corn during the

quarter totaled 2.173 billion bushels. That is 68 million bushels, or 3 percent, less than feed and residual use during that same quarter last year.

First quarter feed and residual use is not a perfect forecast of use for the entire year. Over the previous 5 years, first quarter use has ranged from 35.3 to 37.5 percent of the total for the year. The average of 36.5 percent, would point to consumption this year of 5.95 billion. Based on the experience of the previous 5 years, however, the range of expectations might be from 5.8 to 6.155 billion bushels. On the surface, larger livestock inventories might suggest a year-over-year increase in feed and residual use. Use last year totaled 6.141 billion bushels. Higher corn prices, however, are expected to reduce the rate of corn feeding. For the year, the USDA projects feed and residual use at 5.975 billion bushels, 166 million (2.7 percent) less than feed and residual use of a year ago. We are using a forecast very near that, 5.96 billion bushels.

Processing Use Up Sharply

The USDA estimates that 808 million bushels of U.S. corn were used in the seed, food, and industrial category during the first quarter of the 2006-07 marketing year (Table 4). That is 111 million bushels, or 16 percent, more than used during the first quarter last year. All of the year over year increase was for ethanol production. Ethanol use of corn during the first quarter was estimated at 475 million bushels, 30 percent more than during the same period last year. For the entire marketing year, the USDA projects ethanol use of corn at 2.15 billion bushels, 34 percent more than used in the previous year. Corn used for all seed, food, and industrial purposes is projected at 3.535 billion bushels, 18.6 percent more than used last year.

For ethanol use of corn to reach the USDA's projection, use during the last three-quarters of the year will need to total 1.675 billion bushels, 35.2 percent more than used in that time frame last year. Estimates from the Renewable Fuels Association show 75 ethanol plants under construction and 8 of the existing 111 plants expanding capacity. When that construction is finished, ethanol production capacity is forecast at 11.6 billion bushels, requiring in excess of 4.2 billion bushels of corn. For the current year, the question is how soon new construction comes on line. Longer term, the potential for corn use will depend on how many additional plants are constructed. It appears that use this year could easily exceed the USDA projection. We are using a forecast of 2.2 billion bushels, bringing the forecast of total seed, food, and industrial use to 3.585 billion bushels.

For the current marketing year, use of U.S. corn for all purposes could reach 11.795 billion bushels, leaving

year ending stocks of 717 million bushels or only 6 percent of projected use. The USDA forecasts that the average price received by farmers during the 2006-07 marketing year will be in a range of \$3.00 to \$3.40. The first half of the crop was likely sold at an average near \$2.70, implying that the last half will need to be sold at about \$3.70 per bushel for the average to be near \$3.20.

Prospects for 2007-08

The extremely high prices of corn and the escalating consumption for ethanol will likely trigger a large increase in planted acreage of corn in 2007. It is difficult to judge how large that increase will be due to the lack of historical experience. The increase will come primarily at the expense of oilseeds, mostly soybeans; but also from spring wheat, other feed grains, cotton, pasture, and hay. The USDA estimates that seedings of winter wheat are up 3.5 million acres. That increase was primarily in the hard red winter wheat areas, but also included nearly 1 million more acres in the southeast. The current price ratio for 2007 crop soybeans and corn is less than 2 to 1, suggesting that second year corn could be much more profitable than soybeans in large areas of the corn belt. The area from southern Minnesota, Iowa, Illinois, Indiana, and western Ohio would be expected to account for much of the increase in corn acreage.

One approach is to calculate how many corn acres are needed in 2007. The answer, however, depends on average yield; the strength of demand; and most importantly, the level at which price is to be supported. To keep price in the \$3.00 to \$3.50 area, it might be necessary to keep 2007-08 marketing year ending stocks-to-use ratio near 6 percent. At that level of price, feed and residual use of corn might stabilize below the projected level for this year due to increased availability of distiller dried grain, perhaps near 5.85 billion bushels. Export demand for U.S. corn would be expected to remain strong if China reduces exports, but consumption could be limited by the high price of corn and a rebound in world wheat production. U.S. shipments might be near 2.15 billion bushels. Based on the current pace of construction, ethanol use of corn could increase another 1 billion bushels in 2007-08 to about 3.2 billion, bring total; seed, food, and industrial use to 4.585 billion. If supplies are available, use of U.S. corn during the 2007-08 marketing year could be near 12.585 billion bushels, requiring year-ending stocks of 755 million bushels in order to maintain a 6 percent stocks-to-use ratio. That level of use would require a crop of 12.6 billion bushels.

A trend yield for 2007 might be near 155 bushels. More corn-on-corn acres might reduce that expectation, but the increased acreage should be in the high corn yielding areas. A yield of 155 bushels

means that 81.3 million acres of corn would need to be harvested for grain in 2007. With a normal level of abandonment and allowing for about 6 million acres harvested for silage, corn plantings may "need" to be near 88.4 million acres. Allowing year-ending stocks to decline to 5 percent of use, or 630 million bushels, would require acreage to increase to 87.6 million, 9.3 million more than planted in 2006. The USDA will release the *Prospective Plantings* report on March 30, revealing the results of the survey of producer planting intentions.

Beyond 2007

It now appears likely that corn production could increase enough in 2007, assuming a trend yield, to supply the expanding ethanol industry and prevent prices from being punitive to other users of corn. Beyond the 2007-08 marketing year, the questions center around the rate of expansion in ethanol production. Three factors could have significant impact on that rate of increase. The first two are centered around the likely price of ethanol and its influence on the profitability of ethanol production – where will crude oil and, therefore, wholesale unleaded gasoline prices settle and what will be the relationship of ethanol prices to unleaded gasoline prices. There is no reliable way to forecast the price of unleaded gasoline. However, there should be some concern about the ability of ethanol prices to maintain the current premium to unleaded gasoline prices once production is sufficient to exceed mandated levels and all MTBFs are replaced. Production beyond that level would theoretically be sold only if the price is competitive with unleaded gasoline. For example, the wholesale rack price of unleaded gasoline in Omaha in December 2006 averaged \$1.69 per gallon and the average rack price of ethanol was \$2.43 per gallon. If ethanol prices are to be competitive with unleaded gasoline prices in order for consumption to exceed mandates/MTBF replacement, the price should be no more than .67 times the price of unleaded gasoline (BTU adjustment) plus \$.51 (blender tax credit). Under that scenario, wholesale unleaded gasoline at \$1.69 per gallon points to ethanol priced at \$1.64 per gallon.

The third factor affecting the rate of ethanol expansion will be energy and agriculture policy. Current rhetoric from the administration and members of Congress reveal a lot of political support for expanding subsidies and/or mandates for alternative fuels, including ethanol. Those sponsoring a significant expansion in biofuels production appear to believe that there is an inexhaustible supply of crops to feed the expansion. At some point, policy makers will have to do the math relative to lofty biofuel goals and crop supply. That reconciling will likely be related to the rate at which food prices increase.

Marketing Decisions

Corn marketing decisions are never easy, but the combination of rapidly expanding demand, the need for an increase in corn acreage, and uncertainty about the 2007 growing season present greater than normal marketing challenges. For the 2007 crop, producers might:

1. Plan on buying a revenue insurance product with a high level of coverage, particularly if December 2007 futures prices remain high through February. Those insurance products will be relatively expensive, but will likely provide a reasonable guarantee of profitable returns for the 2007 crop.
2. Price a portion of the 2007 crop prior to the release of the USDA's March 30 *Prospective Planting* report in case it shows extremely large corn planting intentions.
3. Price another portion of the 2007 crop using options strategies. For example, buying December 2007 put options with a strike price of \$3.90 for \$.40 per bushel, and selling December 2007 call options with a strike price of \$5.00 per bushel for \$.17, would establish a minimum futures price of \$3.67 and a maximum futures price of \$4.77.

4. Consider establishing the basis on some of the 2007 crop if bids reflect a strong basis. A large increase in production and a good growing season could result in a shortage of permanent storage capacity in the fall, even with the construction of new capacity over the next 8 months.

Issued by Darrel Good
Extension Economist
University of Illinois

Table 1. United States Corn Yield Estimates

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
	bushels per acre																															
July 1	93.0	90.5	89.4	90.1	95.8	99.3	95.9	...	...	...	...	...	...	...	87.0																	
August 1	87.4	86.7	87.3	96.1	102.1	93.0	104.3	113.9	99.9	107.9	110.6	120.4	121.4	78.5	112.8	117.7	107.8	121.3	116.0	128.4	125.6	118.7	125.3	130.0	134.7	141.9	133.9	125.2	139.9	148.9	139.2	152.2
September 1	85.1	82.8	89.7	100.3	104.6	91.8	107.1	113.9	85.1	106.3	113.3	119.7	119.9	78.5	112.4	121.7	106.1	121.4	113.1	129.0	121.1	120.2	125.2	132.0	132.2	141.8	133.5	125.4	138.5	149.4	143.2	154.7
October 1	86.2	82.7	90.8	100.7	106.4	90.8	109.0	114.2	82.9	105.5	115.1	119.2	119.9	80.2	114.4	120.3	108.8	123.8	110.3	133.8	116.6	123.0	125.8	132.0	133.5	139.6	136.3	127.2	142.2	158.4	146.1	153.5
November 1	87.2	85.5	91.5	101.2	109.2	90.8	109.2	114.2	80.5	105.9	116.6	119.3	120.3	82.3	116.6	119.0	108.6	129.3	103.1	138.4	113.7	126.5	126.4	133.3	134.5	137.7	138.0	127.6	143.2	160.2	148.4	151.2
January 1	86.2	87.4	90.8	101.2	109.4	91.0	109.9	114.8	81.6	106.6	118.0	119.3	119.4	84.6	116.2	118.5	108.6	131.4	100.7	138.6	113.5	127.1	127.0	134.4	133.8	137.1	138.2	130.0	142.2	160.4	147.9	149.1
FINAL	86.4	88.0	90.8	101.0	109.5	91.0	108.9	113.2	81.1	106.7	118.0	119.3	119.8	84.6	116.3	118.5	108.6	131.5	100.7	138.6	113.5	127.1	126.7	134.4	133.8	136.9	138.2	129.3	142.2	160.7	148.0	

Table 2. United States Corn Production Es¹

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
	million bushels																							
July	...	...	...	...	...	5,200																		
August	5,237	7,668	8,266	8,316	7,231	4,479	7,348	7,850	7,418	8,762	7,423	9,214	8,122	8,695	9,276	9,592	9,561	10,369	9,266	8,886	10,064	10,923	10,350	10,976
September	4,390	7,552	8,469	8,268	7,141	4,462	7,321	8,118	7,295	8,770	7,229	9,257	7,832	8,804	9,268	9,738	9,381	10,362	9,238	8,849	9,944	10,961	10,639	11,114
October	4,259	7,498	8,603	8,220	7,139	4,553	7,449	8,022	7,479	8,938	6,962	9,602	7,541	9,012	9,312	9,743	9,467	10,192	9,430	8,970	10,207	11,613	10,857	10,905
November	4,121	7,527	8,717	8,223	7,166	4,671	7,590	7,935	7,479	9,329	6,503	10,010	7,374	9,265	9,359	9,836	9,537	10,054	9,546	9,003	10,278	11,741	11,032	10,745
January	4,204	7,656	8,865	8,253	7,064	4,921	7,527	7,933	7,474	9,479	6,344	10,103	7,374	9,293	9,366	9,761	9,437	9,968	9,507	9,008	10,114	11,807	11,112	10,535
FINAL	4,174	7,672	8,875	8,226	7,131	4,929	7,532	7,934	7,475	9,477	6,338	10,051	7,400	9,233	9,207	9,759	9,431	9,915	9,503	8,967	10,089	11,807	11,114	

Table 3. United States Corn Planting Intentions, Actual Plantings, and Acres Harvested

Year	Planted Acreage				Harvested Acreage
	February/January Intentions	March Intentions	June Intentions	Actual	
			thousand acres		
1976	80,822	82,727	84,092	84,588	71,506
1977	84,526	83,923	82,735	84,328	71,614
1978	80,944	80,237	78,717	81,675	71,930
1979	80,676	79,209	79,751	81,394	72,400
1980	83,131	82,022	83,478	84,043	72,961
1981	...	83,977	84,677	84,097	74,524
1982	...	84,735	82,129	81,857	72,719
1983	69,569 ^a	58,812	60,129	60,217	51,479
1984	...	81,766	79,940	80,617	71,897
1985	...	82,021	83,217	83,398	75,209
1986	...	78,066	76,646	76,580	68,907
1987	...	67,556	66,024	66,200	59,505
1988	...	66,926	67,519	67,717	58,250
1989	...	73,253	72,790	72,322	64,783
1990	...	74,804	74,574	74,166	66,952
1991	77,500	76,124	75,909	75,957	68,822
1992		79,007	79,335	79,311	72,077
1993		76,486	74,259	73,239	62,933
1994		78,625	78,767	78,921	72,514
1995		75,323	72,800	71,479	65,210
1996		79,920	80,355	79,229	72,644
1997		81,416	80,227	79,537	72,671
1998		80,781	80,798	80,165	72,589
1999		78,219	77,611	77,386	70,487
2000		77,881	79,579	79,551	72,440
2001		76,693	76,109	75,702	68,768
2002		79,047	78,847	78,894	69,330
2003		79,022	79,066	78,603	70,944
2004		79,004	80,968	80,929	73,631
2005		81,413	81,592	81,779	75,117
2006		78,019	79,366	78,327	70,648

^a February

Table 4. Com Quarterly Balance Sheet

	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2008-07
	million bushels																							
September 1 stocks	3,523	1,006	1,648	4,040	4,882	4,259	1,930	1,344	1,521	1,100	2,113	850	1,558	426	883	1,308	1,787	1,718	1,899	1,596	1,087	958	2,114	1,967
Production	4,174	7,672	8,875	8,226	7,131	4,929	7,532	7,934	7,475	9,477	6,338	10,051	7,400	9,233	9,207	9,759	9,431	9,915	9,503	8,968	10,089	11,807	11,114	10,535
TOTAL*	7,697	8,680	10,534	12,267	12,016	9,191	9,464	9,282	9,016	10,584	8,472	10,910	8,974	9,672	10,099	11,085	11,232	11,640	11,412	10,578	11,190	12,776	13,237	12,512
September-November																								
Seed, food, ind.	227	244	276	295	296	302	312	338	361	370	383	410	417	388	435	450	459	466	492	549	588	643	697	808
Export	493	503	415	318	396	471	582	383	421	488	435	449	660	487	380	450	535	507	448	393	470	499	477	592
Feed, residual	1,326	1,301	1,219	1,348	1,551	1,344	1,487	1,619	1,673	1,814	1,701	1,963	1,778	1,885	2,030	2,118	2,188	2,131	2,200	1,966	2,166	2,175	2,241	2,173
TOTAL	2,048	2,048	1,910	1,961	2,243	2,117	2,381	2,339	2,455	2,672	2,519	2,822	2,856	2,759	2,845	3,018	3,182	3,104	3,140	2,928	3,224	3,317	3,415	3,573
December 1 stocks	5,652	6,631	8,615	10,305	9,771	7,072	7,082	6,940	6,547	7,906	5,937	8,080	6,106	6,903	7,247	8,052	8,039	8,530	8,265	7,638	7,954	9,452	9,815	8,930
Seed, food, ind.	212	236	262	281	288	301	313	330	362	365	379	410	405	400	425	434	447	465	482	563	609	637	708	
Export	506	580	480	313	405	502	682	471	362	463	330	590	562	525	380	465	448	415	448	390	506	439	485	
Feed, residual	1,069	1,192	1,306	1,463	1,444	1,065	1,276	1,351	1,267	1,401	1,240	1,492	1,344	1,486	1,503	1,460	1,529	1,607	1,540	1,557	1,571	1,620	1,636	
TOTAL	1,787	2,008	2,028	2,057	2,137	1,868	2,271	2,152	1,991	2,229	1,949	2,493	2,311	2,411	2,308	2,359	2,441	2,488	2,471	2,510	2,686	2,696	2,829	
March 1 stocks	3,865	4,623	6,587	8,248	7,636	5,204	4,812	4,789	4,561	5,678	3,996	5,592	3,800	4,494	4,940	5,698	5,602	6,043	5,795	5,132	5,271	6,756	6,987	
Seed, food, ind.	253	294	307	333	337	353	376	384	414	414	423	452	433	471	470	495	512	514	539	617	676	700	774	
Export	513	475	201	496	510	592	601	454	371	411	270	568	610	433	350	497	451	455	497	393	465	428	565	
Feed, residual	954	1,019	1,091	1,088	951	841	993	960	1,042	1,146	950	1,159	1,044	1,097	1,084	1,097	1,058	1,153	1,166	1,141	1,166	1,311	1,290	
TOTAL	1,720	1,788	1,599	1,917	1,798	1,788	1,970	1,798	1,828	1,971	1,642	2,180	2,087	2,001	1,904	2,089	2,022	2,122	2,203	2,151	2,307	2,439	2,629	
June 1 stocks	2,145	2,836	4,990	6,332	5,839	3,419	2,843	2,992	2,739	3,709	2,360	3,415	1,718	2,497	3,040	3,616	3,586	3,924	3,597	2,985	2,970	4,321	4,362	
Seed, food, ind.	238	293	307	324	331	341	369	374	396	407	429	442	373	460	475	467	496	512	532	611	664	706	803	
Export	374	292	151	365	406	463	503	419	430	301	293	570	396	353	394	572	485	564	512	411	459	452	620	
Feed, residual	527	603	499	761	843	685	627	679	816	891	789	846	527	809	865	792	890	951	958	879	892	1,052	974	
TOTAL	1,139	1,188	957	1,450	1,580	1,489	1,499	1,472	1,642	1,599	1,511	1,858	1,295	1,617	1,734	1,831	1,871	2,027	2,002	1,900	2,015	2,210	2,396	
September 1 stocks	1,008	1,648	4,040	4,882	4,259	1,930	1,344	1,521	1,100	2,113	850	1,558	426	883	1,308	1,787	1,718	1,899	1,596	1,087	958	2,114	1,967	
Annual																								
Seed, food, ind.	930	1,067	1,152	1,233	1,251	1,298	1,370	1,425	1,533	1,556	1,613	1,715	1,628	1,714	1,805	1,846	1,913	1,957	2,046	2,340	2,537	2,686	2,981	
Export	1,867	1,850	1,227	1,492	1,716	2,029	2,367	1,727	1,584	1,863	1,328	2,177	2,228	1,797	1,504	1,989	1,937	1,941	1,905	1,588	1,900	1,818	2,147	
Feed, residual	3,876	4,115	4,114	4,660	4,789	3,934	4,382	4,609	4,798	5,252	4,860	5,460	4,693	5,277	5,482	5,468	5,665	5,842	5,864	5,563	5,795	6,158	6,141	
TOTAL	6,693	7,032	6,494	7,385	7,757	7,260	8,120	7,761	7,916	8,471	7,622	9,352	8,548	8,789	8,791	9,298	9,515	9,741	9,815	9,491	10,232	10,662	11,270	

* Includes imports for the entire year

Table 5. Corn Annual Balance Sheet

	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08*
					million bushels														
Carryin	1,930	1,344	1,521	1,100	2,113	850	1,558	426	883	1,308	1,787	1,718	1,899	1,596	1,087	958	2,114	1,967	717
Production	7,532	7,934	7,475	9,477	6,338	10,051	7,400	9,233	9,207	9,759	9,431	9,915	9,503	8,968	10,089	11,807	11,114	10,535	12,500
TOTAL ^b	9,464	9,282	9,016	10,584	8,472	10,910	8,974	9,672	10,099	11,085	11,232	11,659	11,412	10,578	11,190	12,776	13,237	12,512	13,227
Seed, food, industrial	1,370	1,425	1,533	1,556	1,613	1,715	1,628	1,714	1,805	1,846	1,913	1,957	2,046	2,340	2,537	2,686	2,981	3,585	4,585
Export	2,367	1,727	1,584	1,663	1,328	2,177	2,228	1,797	1,504	1,981	1,937	1,935	1,905	1,588	1,897	1,818	2,147	2,250	2,150
Feed and residual	4,382	4,609	4,798	5,252	4,680	5,460	4,693	5,277	5,482	5,471	5,664	5,848	5,864	5,563	5,798	6,158	6,141	5,960	5,850
TOTAL	8,120	7,761	7,915	8,471	7,621	9,352	8,548	8,789	8,791	9,298	9,515	9,741	9,815	9,491	10,232	10,662	11,270	11,795	12,858
Carryout	1,344	1,521	1,100	2,113	850	1,558	426	883	1,308	1,787	1,718	1,899	1,596	1,087	958	2,114	1,967	717	642
U.S. average price	\$2.36	\$2.28	\$2.37	\$2.07	\$2.50	\$2.26	\$3.24	\$2.71	\$2.45	\$1.94	\$1.82	\$1.85	\$1.97	\$2.32	\$2.42	\$2.06	\$2.00	\$3.20	\$3.35

* Projected

^b Includes imports



Grain Price OUTLOOK

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SOYBEANS: SURPLUS GROWS, ACREAGE TO DECLINE

JANUARY 2007

Darrel Good

2007 – No. 2

Summary

The 2006 U.S. soybean crop was a record 3.188 billion bushels, but was 16 million smaller than the November 2006 forecast. Consumption of U.S. soybeans will fall short of 3.1 billion bushels, leading to another sizeable increase in U.S. and world stocks by the end of the 2006-07 marketing year.

The 2007 South American soybean harvest is also forecast to be record large, at 3.89 billion bushels. That forecast is 140 million bushels larger than the 2006 harvest. Current crop and weather conditions remain generally favorable, with the critical part of the growing season just ahead.

U.S. producers are expected to reduce soybean acreage in 2007 in favor of more corn acreage. Unless acreage is reduced by more than 7 million acres (9.3 percent) from the record level of 2006 and/or the U.S. average yield falls below trend value in 2007, U.S. and world soybean supplies will be fully adequate to accommodate continued expansion of consumption during the 2007-08 marketing year. If current soybean prices (March 2008 futures near \$7.75) are maintained for another 8 months, South American acreage will likely increase.

Soybean prices have moved sharply higher since early September 2006. The average cash price in central Illinois reached a marketing year low of \$5.045 on September 6, 2006 and a high of \$6.86 on January 17,

2007. Soybean prices will continue to follow corn prices, with a spread of just under 2 to 1 in the November 2007 soybean futures and December 2007 corn futures contracts, as the market worries that too many acres will be switched from soybeans to corn. The average cash price received by U.S. farmers from January through August 2007 is expected to be near \$6.50, but prices could trade in a wide range.

Surplus to Grow

The USDA estimates the size of the 2006 U.S. soybean crop at 3.188 billion bushels. That estimate is 16 million bushels smaller than the November 2006 forecast, exceeds the 2005 crop by 125 million, and exceeds the previous record crop of 2004 by 64 million bushels (Table 1). The year-over-year increase in production reflected record large planted and harvested acreage of soybeans. Planted acreage was estimated at 75.522 million, 3.49 million more than planted in 2005 and 314,000 more than the previous record acreage of 2004 (Table 2). The majority of the year-over-year increase in planted acreage came in western growing areas, where acreage was up by 2.35 million. The largest increase was in North Dakota, where plantings increased by 950,000 acres, or 32 percent. Acreage was up by 1.09 million in the eastern corn belt (Table 3). Harvested acreage was a record 74.602 million, 3.351 million more than harvested in 2005 and 644,000 more than harvested in 2004.

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The 2006 U.S. average soybean yield was estimated at 42.7 bushels per acre, 0.3 bushels below the November 2006 forecast and 0.3 bushels below the record average yield of 2005 (Table 4). The highest state average yield came in Iowa, at 50.5 bushels, followed by Indiana and Nebraska at 50 bushels. The Illinois average yield was estimated at 48 bushels.

U.S. soybeans were crushed at a record pace during the first quarter of the 2006-07 marketing year. The three-month total crush of 459.1 million bushels exceeded the crush of a year earlier by 16.7 million bushels, or about 3.8 percent (Table 5). Soybeans are being crushed to meet the demand for soybean meal. Domestic meal consumption in October and November 2006 is estimated at 5.944 million tons, 2.2 percent more than during the same two months a year earlier. Meal exports during the two months totaled 1.518 million tons, representing a 13.8 percent year-over-year increase. During that same period, domestic soybean oil consumption was up about 10 percent and exports were up about 24 percent, but stocks of oil remained in surplus. The Census Bureau started reporting the amount of refined soybean oil used in biodiesel production beginning in January 2006. Use for that purpose accounted for about 8 percent of total consumption of U.S. soybean oil (domestic plus exports) in October and November 2006. Some crude oil is also used for biodiesel, but those quantities are not reported separately.

As of January 11, 2007, the USDA reported cumulative exports of soybean meal since October 1, 2006 at 2.06 million tons, up 3.7 percent from the total of a year earlier. Unshipped sales stood at 2.17 million tons, compared to only 1.39 million tons a year earlier. Those larger unshipped sales were to South Korea, Canada, and Mexico. For the year, the USDA projects U.S. soybean meal exports at 8.7 million tons, 8 percent more than shipped last year and the second largest shipments on record. Exports totaled 9.33 million tons in 1997-98 (Table 6). Based on

the current pace of sales, it appears that shipments for the year could exceed the current USDA forecast. We use a projection of 8.9 million tons.

If domestic soybean meal consumption continued at the pace experienced in October and November, consumption for the year might reach 34.1 million tons. Some slow down may occur due to larger supplies of distiller dried grain and narrowing livestock feeding margins. We project use at 34 million tons. At a yield of 47.6 pounds of meal per bushel of soybeans, projected consumption of 42.9 million pounds of meal would require 1.795 billion bushels of soybeans to be crushed during the 2006-07 marketing year, assuming imports of 165,000 tons.

With an average oil yield of 11.3 pounds per bushel, a crush of 1.795 billion bushels would produce about 20.285 million pounds of soybean oil during the current marketing year. The USDA forecasts oil exports during the current marketing year at 1.45 billion pounds, 25.8 percent more than exported last year. As of January 11, the USDA reported commercial exports of 520 million pounds, 136 percent more than the cumulative total of a year ago. Unshipped sales were small, at 169 million pounds, about the same level as a year ago. Based on large shipments to date, we forecast marketing year exports of oil at 1.5 billion pounds (Table 7).

The USDA forecasts domestic oil consumption during the current marketing year at 19.1 billion pounds, 6.4 percent more than used last year. That forecast implies a slow down from the 10 percent year-over-year increase experienced in the first two months of the year. That projected slow down is consistent with higher prices now being experienced. The use of soybean oil for biodiesel production will be slowed with higher prices. We forecast use at 19.2 billion pounds, representing a 7 percent increase from use of a year ago. Even with a 1.6 billion pound increase in soybean oil consumption, stocks at the end of the year would be more than abundant.

Exports of U.S. soybeans during the first quarter of the 2006-07 marketing year totaled almost 374 million bushels, 61 million more than during the same quarter a year earlier (Table 5). Exports remain brisk, with the marketing year total reaching 564 million bushels through January 18. That is about 97 million more than the total of a year ago. Large year-over-year increases in exports have been registered for the European Union and China. About 40 percent of all U.S. exports have gone to China.

For the year, the USDA forecasts exports at a record 1.12 billion bushels, 173 million more than exported last year. As of January 11, 262 million bushels of U.S. soybeans had been sold for export, but not yet shipped. Unshipped sales a year earlier totaled only 179 million. Sales to China accounted for 50 million of the 83 bushel increase in outstanding sales.

The size of the South American harvest will influence the export demand for U.S. soybeans during the last half of the marketing year. Early season growing conditions have been generally favorable, with the critical part of the season just ahead. The USDA projects a record South American harvest of 3.89 billion bushels, 140 million larger than the 2006 crop. Production is expected to be up by 63 million bushels in Argentina and 37 million in Brazil (Table 8). The larger Argentine crop expectation is based on an increase in acreage and a modestly higher yield than that of last year. The larger Brazilian crop expectation reflects higher yield prospects, and a small reduction in acreage (Table 9). A continuation of favorable growing conditions could result in a crop above the current projection. It appears unlikely that U.S. soybean exports will exceed the USDA projection, particularly with expectations that the total foreign oilseed crop will be about 2 percent larger than the crop of 2005-06 (Table 10).

Based on the projections developed here, year-ending stocks of U.S. soybeans will total 560 million bushels, or 18.2 percent of

expected consumption. Historical relationships between the year-ending stocks-to-use ratio and the average price received by farmers would point to a 2006-07 marketing year average price of about \$5.50. The average price received by farmers for the first half of the crop likely sold in the September through December 2006 period was near \$5.70. Prices have been sharply higher since then, and the USDA projects the marketing year average farm price in a range of \$5.75 to \$6.45. To average at the \$6.10 mid-point, the last half of the crop would need to be sold at an average price near \$6.50. Soybean prices are being supported by high corn prices and the likely decline in U.S. soybean acreage in 2007.

Prospects for 2007-08

The rapid expansion in ethanol production and current high prices of corn are expected to motivate producers to plant significantly more corn acreage in 2007. An increase of about 9 million acres is probably needed to keep corn prices at levels that are not too punitive for livestock producers. Much of that increase will come from acreage that would normally be planted to soybeans. Producer planting intentions will not be known until the USDA releases survey results in the March 30 *Prospective Plantings* report.

A sizeable decline in soybean acreage can be accommodated because of the prospects for large stocks at the end of the current marketing year. If 250 million bushels is a comfortable level of stocks at the end of the 2007-08 marketing year and consumption of U.S. soybeans increases by 70 million bushels during the year ahead, the 2007 crop needs to total only about 2.84 billion bushels, nearly 350 million less than the 2006 crop. With an average yield at the 2006 level of 42.7 bushels, 66.5 million acres would need to be harvested and 66.7 million planted in 2007. That is, U.S. acreage could decline by 7 million without threatening to deplete the U.S. inventory. For now, we project a 6 million acre reduction, a crop of 2.925 billion bushels, and 2007-08 marketing year ending stocks of

about 340 million bushels (Table 11). Historically, a year-ending-stocks to use ratio of 10.8 percent would project to a marketing year average farm price for 2007-08 at just over \$6.00. An average of \$6.50 is projected based on expectations of a continuation of high corn prices. An important factor for soybean prices will be the reaction of South American soybean producers to a cut in acreage in the U.S. and relatively high soybean prices. With March 2008 soybean futures near \$7.75, South American producers are likely planning a significant increase in soybean acreage for harvest in 2008. If U.S. producer cut acreage more sharply than assumed here, soybean prices could provide even more incentive for South American producers to increase acreage.

Marketing Decisions

Based on average cash prices received through December 2006 and closing futures prices on January 19, the market was reflecting an average farm price of \$6.50 for the 2006-07 marketing year and an average of \$7.50 for the 2007-08 marketing year. Those prices are high enough to encourage some additional pricing of the 2006 crop and an initial sale of the 2007 crop. Additional pricing opportunities may emerge around the release of the *Prospective Plantings* report on March 30 and during the upcoming growing season. Crop revenue insurance products will likely be more expensive this year due to higher price guarantees. Even so, a high level of coverage could insure a profitable return on the 2007 crop.

Issued by Darrel Good
Extension Economist
University of Illinois

Table 1. United States Soybean Production Estimates

Table 1. United States Soybean Production Estimates																												
	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
	million bushels																											
August 1	2,130	1,880	2,017	2,293	1,843	2,035	1,959	1,979	2,000	1,474	1,905	1,836	1,869	2,079	1,902	2,282	2,246	2,300	2,744	2,825	2,870	2,989	2,867	2,628	2,862	2,877	2,791	2,928
September 1	2,174	1,831	2,089	2,314	1,535	2,028	2,063	1,980	1,957	1,472	1,889	1,835	1,817	2,085	1,909	2,316	2,285	2,270	2,746	2,909	2,778	2,900	2,834	2,656	2,643	2,836	2,856	3,093
October 1	2,213	1,757	2,107	2,300	1,517	1,972	2,108	1,992	1,968	1,501	1,926	1,823	1,934	2,108	1,891	2,458	2,190	2,346	2,722	2,769	2,696	2,823	2,907	2,654	2,468	3,107	2,967	3,189
November 1	2,236	1,775	2,077	2,300	1,535	1,902	2,129	2,009	1,960	1,512	1,937	1,904	1,962	2,167	1,834	2,523	2,183	2,403	2,736	2,763	2,673	2,777	2,923	2,690	2,452	3,150	3,043	3,204
January 1	2,268	1,817	2,030	2,277	1,595	1,861	2,099	2,007	1,905	1,539	1,927	1,922	1,986	2,197	1,809	2,558	2,152	2,382	2,727	2,757	2,643	2,770	2,891	2,730	2,418	3,141	3,086	3,188
FINAL	2,261	1,798	1,989	2,190	1,636	1,861	2,099	1,943	1,938	1,549	1,924	1,926	1,987	2,190	1,870	2,515	2,174	2,380	2,689	2,741	2,654	2,758	2,891	2,756	2,454	3,124	3,063	

Table 2. Soybean Planting Intentions, Actual Plantings, and Acres Harvested

Year	January Intentions	Mar./April Intentions	June/July Intentions	Actual	Harvested Acreage
			million acres		
1975	57.5	56.6	54.6	54.6	53.8
1976	50.9	49.3	49.0	50.3	49.4
1977	53.1	55.7	59.0	59.0	57.6
1978	63.9	63.7	64.0	64.7	63.3
1979	66.3	68.8	71.6	71.4	70.3
1980	71.6	71.3	70.3	69.9	67.8
1981	----	69.8	68.5	67.5	66.2
1982	69.5 ^a	---	72.2	70.9	69.4
1983	68.8 ^a	65.8 ^b	63.3	63.8	62.5
1984	65.2 ^a	---	68.0	67.8	66.1
1985	64.4 ^a	---	63.3	63.1	61.6
1986	---	62.0	61.8	60.4	58.3
1987	---	56.9	58.7	58.180	57.172
1988	---	58.0	58.5	58.840	57.373
1989	---	61.7	61.3	60.820	59.282
1990		59.42	58.05	57.795	56.283
1991	58.5	57.12	59.78	59.180	58.169
1992		57.42	59.03	59.180	58.233
1993		59.30	61.58	60.085	57.307
1994		61.12	61.78	61.620	60.809
1995		61.45	63.105	62.495	61.544
1996		62.478	63.895	64.195	63.349
1997		68.800	70.850	70.005	69.110
1998		72.000	72.720	72.025	70.441
1999		73.105	74.205	73.730	72.446
2000		74.871	74.501	74.266	72.408
2001		76.657	75.416	74.075	72.975
2002		72.966	72.993	73.963	72.497
2003		73.182	73.653	73.404	72.476
2004		75.411	74.809	75.208	73.958
2005		73.910	73.103	72.032	71.251
2006		76.895	74.930	75.522	74.602

^a February 1^b May 1

Table 3. Planted Acres of Soybeans by Region

Region	Western Corn Belt ^a		Eastern Corn Belt ^b		Mid-South ^c		Southeast ^d		East Coast ^e		United States	
	000 acres	%	000 acres	%	000 acres	%	000 acres	%	000 acres	%	000 acres	%
1976	16,145	32.1	14,530	28.9	13,630	27.1	4,799	9.6	1,122	2.3	50,226	100.0
1979	23,370	32.7	19,620	27.5	18,470	25.9	8,360	11.7	1,591	2.2	71,411	100.0
1986	24,875	41.2	18,300	30.3	10,995	18.2	4,680	7.8	1,535	2.5	60,385	100.0
1987	24,120	41.5	18,580	31.9	10,330	17.8	3,675	6.3	1,475	2.5	58,180	100.0
1988	24,310	41.3	18,680	31.7	10,460	17.8	3,810	6.5	1,580	2.7	58,840	100.0
1989	24,790	40.8	19,020	31.3	10,750	17.7	4,460	7.3	1,800	2.9	60,820	100.0
1990	23,750	41.1	18,490	32.0	10,270	17.2	3,650	6.3	1,635	2.8	57,795	100.0
1991	26,035	44.0	19,420	32.8	8,990	15.2	3,005	5.1	1,730	2.9	59,180	100.0
1992	25,400	42.9	20,000	33.8	8,980	15.2	2,915	5.2	1,715	2.9	59,180	100.0
1993	25,300	42.1	20,410	34.0	9,690	16.1	2,915	4.9	1,770	2.9	60,085	100.0
1994	27,220	44.1	20,510	33.3	9,220	15.0	2,875	4.7	1,795	2.9	61,620	100.0
1995	28,210	45.1	21,130	33.8	9,130	14.7	2,290	3.6	1,735	2.8	62,495	100.0
1996	28,250	44.0	22,370	34.8	9,390	14.6	2,565	4.0	1,620	2.5	64,195	100.0
1997	32,450	46.4	22,610	32.3	10,390	14.8	2,777	4.0	1,778	2.5	70,005	100.0
1998	33,700	46.8	23,650	32.8	10,180	14.1	2,690	3.8	1,805	2.5	72,025	100.0
1999	35,800	48.5	24,100	32.7	9,700	13.2	2,360	3.2	1,770	2.4	73,730	100.0
2000	37,050	49.9	24,050	32.4	9,010	12.1	2,230	3.0	1,926	2.6	74,266	100.0
2001	37,700	50.9	24,650	33.3	7,685	10.4	2,135	2.9	1,905	2.5	74,075	100.0
2002	37,070	50.1	24,740	33.5	8,170	11.0	2,145	2.9	1,838	2.5	73,963	100.0
2003	37,650	51.3	23,770	32.4	7,990	11.3	2,253	3.0	1,741	2.4	73,404	100.0
2004	38,000	50.5	23,550	31.4	9,100	12.1	2,579	3.4	1,979	2.6	75,208	100.0
2005	36,350	50.5	23,010	31.9	8,485	11.8	2,259	3.1	1,928	2.7	72,032	100.0
2006	38,700	51.2	24,100	31.9	8,725	11.6	2,092	2.8	1,905	2.5	75,522	100.0

^a Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota

^b Illinois, Indiana, Michigan, Ohio, Wisconsin

^c Arkansas, Kentucky, Louisiana, Mississippi, Oklahoma, Tennessee, Texas

^d Alabama, Florida, Georgia, North Carolina, South Carolina

^e Delaware, Maryland, New Jersey, New York, Pennsylvania, Virginia, West Virginia

Table 4. United States Soybean Yield Estimates

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
	million bushels																											
August 1	30.3	27.4	30.2	32.3	29.7	30.5	31.5	32.9	34.7	26.0	32.3	32.5	31.8	35.8	33.8	37.6	36.4	36.3	39.5	39.5	39.2	40.7	38.7	36.5	39.4	39.1	38.7	39.6
September 1	30.9	27.0	31.2	32.6	24.9	30.3	33.2	33.1	34.0	25.9	32.0	32.4	31.0	35.9	34.0	38.2	37.0	35.8	39.3	40.6	37.9	39.5	38.2	37.0	36.4	38.5	39.6	41.8
October 1	31.5	26.0	31.5	32.4	24.7	29.5	33.9	33.3	34.2	26.4	32.6	32.3	33.0	36.3	33.7	40.5	35.5	37.0	39.0	38.7	37.0	38.7	39.2	37.0	34.0	42.0	41.6	42.8
November 1	31.8	26.5	31.0	32.4	25.0	28.5	34.2	33.8	34.1	26.6	32.8	33.7	33.5	37.3	32.7	41.5	35.4	37.9	39.2	38.6	36.7	38.0	39.4	37.5	33.8	42.6	42.7	43.0
January 1	32.2	26.8	30.4	32.2	25.7	28.2	34.1	33.8	33.7	26.8	32.4	34.0	34.3	37.6	32.0	41.9	34.9	37.6	39.0	38.9	36.5	38.1	39.6	37.8	33.4	42.5	43.3	42.7
FINAL	32.1	26.5	30.1	31.5	26.2	28.1	34.1	33.3	33.9	27.0	32.3	34.1	34.2	37.6	32.6	41.4	35.3	37.6	38.9	38.9	36.6	38.1	39.6	38.0	33.9	42.2	43.0	

Table 5. Soybean Quarterly Balance Sheet

	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
	million bushels																					
September 1 stocks	316.1	536.4	436.4	302.5	182.0	239.1	329.0	278.4	292.3	209.1	334.8	183.5	131.8	199.8	348.5	290.2	247.7	208.0	178.3	112.4	255.7	449.3
Production	2,099.1	1,942.6	1,937.7	1,548.8	1,923.8	1,925.9	1,986.6	2,190.4	1,869.7	2,514.9	2,174.3	2,380.3	2,868.8	2,741.0	2,653.8	2,757.8	2,890.7	2,756.1	2,453.7	3,123.7	3,063.2	3,188.2
TOTAL	2,415.2	2,479.0	2,374.1	1,855.3	2,108.8	2,167.0	2,319.6	2,470.8	2,167.0	2,730.0	2,514.1	2,572.8	2,825.6	2,943.8	3,006.3	3,052.0	3,141.3	2,968.8	2,637.6	3,241.7	3,322.3	3,641.5
September-November																						
Crush	267.5	295.8	293.4	275.4	273.0	304.1	322.0	328.2	329.6	346.2	351.4	360.6	395.8	409.3	426.7	420.9	427.5	417.5	419.4	427.4	442.4	459.1
Export	166.5	216.5	260.8	136.3	168.5	120.1	167.1	235.9	176.0	230.9	233.6	289.7	365.3	268.5	297.8	315.5	348.6	320.4	385.7	405.8	312.6	373.9
Seed, residual	21.5	10.1	64.6	74.8	56.6	58.8	51.5	70.7	79.8	50.9	95.7	97.4	66.9	78.5	98.9	75.6	89.6	112.3	140.5	99.3	63.2	108.6
TOTAL	455.4	522.4	618.8	488.5	498.1	483.0	540.6	634.8	585.4	628.0	681.7	747.7	826.2	758.8	823.4	812.0	865.7	850.2	945.6	932.4	818.2	941.6
December 1 stocks	1,959.8	1,956.6	1,755.3	1,366.8	1,610.7	1,684.0	1,779.0	1,836.0	1,573.6	2,102.0	1,833.4	1,825.1	1,999.4	2,186.4	2,182.7	2,240.0	2,275.6	2,115.4	1,688.7	2,304.6	2,501.4	2,697.5
Crush	281.9	320.1	317.3	286.3	304.3	301.4	323.1	335.2	327.2	371.8	359.0	400.7	443.1	408.6	408.1	417.9	447.6	422.0	423.2	436.2	437.2	
Export	270.9	233.7	258.9	197.0	217.0	179.7	259.6	255.9	212.7	283.5	278.7	333.1	306.4	243.1	315.4	338.4	422.7	425.5	335.1	400.2	311.4	
Seed, residual	35.7	63.8	33.0	-6.7	33.9	12.8	19.6	29.3	12.1	76.5	5.3	35.5	46.9	77.0	63.2	79.8	69.3	66.9	25.9	88.3	84.4	
TOTAL	588.5	617.6	609.2	476.6	555.2	493.9	602.3	620.4	552.0	731.8	643.0	769.3	796.5	728.7	786.7	836.1	939.6	914.4	784.2	924.7	833.0	
March 1 stocks	1,371.3	1,339.0	1,146.1	890.2	1,055.5	1,190.1	1,177.3	1,215.6	1,021.6	1,370.2	1,190.4	1,055.8	1,202.9	1,457.3	1,396.0	1,403.9	1,336.0	1,202.0	905.8	1,381.4	1,689.2	
Crush	262.3	297.2	308.3	270.1	290.7	295.5	304.0	325.4	320.4	361.7	334.0	355.7	404.9	396.4	373.9	405.4	429.6	400.2	359.5	430.7	431.3	
Export	226.4	159.3	185.0	135.5	153.2	146.9	148.2	186.7	120.6	216.6	188.5	165.9	120.0	161.9	205.8	220.8	155.0	194.4	117.6	211.2	185.5	
Seed, residual	33.7	45.7	-2.5	20.1	15.7	24.2	29.4	20.1	25.3	0.0	44.9	34.3	84.4	50.4	58.9	69.5	66.5	6.3	19.1	41.1	62.7	
TOTAL	522.4	502.2	490.8	425.7	459.6	466.6	481.6	532.2	466.3	578.3	567.4	555.9	609.2	608.7	621.8	695.7	651.1	600.9	496.2	683.1	679.5	
June 1 stocks	848.9	836.8	655.3	464.5	595.9	723.5	695.7	683.4	555.3	791.9	622.8	499.9	593.7	848.6	774.4	708.2	684.9	602.4	410.6	699.3	990.7	
Crush	241.1	265.5	255.5	225.8	278.4	285.9	304.6	290.0	298.4	325.5	324.9	318.7	353.2	375.4	370.1	395.8	395.0	375.6	327.6	401.8	428.0	
Export	76.3	147.4	97.6	56.2	84.2	110.4	109.0	91.0	79.7	107.0	150.5	93.0	78.7	127.5	171.6	121.3	137.2	104.1	48.5	85.5	137.7	
Seed, residual	-4.9	-12.5	0.3	0.5	-5.8	-1.8	3.1	10.1	-31.9	24.6	-35.2	-43.6	-37.9	-1.3	-55.0	-56.6	-55.3	-54.7	-71.0	-41.6	-23.2	
TOTAL	312.5	400.4	352.8	282.5	356.8	394.5	416.7	391.1	346.2	457.1	439.6	368.1	393.9	501.6	486.7	460.5	476.9	425.0	299.1	445.8	542.4	
September 1 stocks	536.4	436.4	302.5	182.0	239.1	329.0	278.4	292.3	209.1	334.8	183.5	131.8	199.8	348.5	290.2	247.7	208.0	178.3	112.4	255.7	449.3	
Annual																						
Crush	1,052.8	1,178.7	1,174.5	1,057.6	1,146.4	1,186.9	1,253.7	1,278.8	1,275.6	1,405.2	1,369.4	1,435.7	1,595.1	1,589.7	1,578.8	1,650.0	1,699.7	1,615.3	1,529.7	1,696.1	1,738.9	
Export	740.1	756.9	801.7	527.0	622.9	557.1	683.9	769.5	589.0	838.0	851.2	881.7	870.4	801.0	973.8	996.0	1,063.5	1,045.0	887.2	1,102.7	947.2	
Seed, residual	85.9	107.0	95.4	86.7	100.4	94.0	103.6	130.2	85.3	152.0	110.4	123.6	160.3	204.6	166.2	168.3	170.1	130.2	108.5	187.2	186.9	
TOTAL	1,878.8	2,042.6	2,071.6	1,673.3	1,969.7	1,838.0	2,041.2	2,178.5	1,949.9	2,397.0	2,330.9	2,441.0	2,625.8	2,595.3	2,718.8	2,803.1	2,933.3	2,790.5	2,525.5	2,986.0	2,873.0	

Table 6. Soybean Meal Balance Sheet -- Years Beginning October 1

	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
Beginning stocks	173	318	285	230	204	150	223	212	210	218	330	293	383	240	220	211	172	314
Production	27,719	28,325	29,831	30,364	30,514	33,270	32,527	34,210	38,176	37,792	37,591	39,385	40,292	38,213	36,325	40,715	41,242	42,720
TOTAL ^a	27,982	28,688	30,183	30,687	30,788	33,483	32,825	34,524	38,443	38,109	37,970	39,729	40,818	38,619	36,830	41,073	41,555	43,199
Domestic	22,291	22,934	23,007	24,251	25,283	26,542	26,611	27,320	28,895	30,657	30,345	31,643	33,070	32,379	31,449	33,561	33,176	34,000
Exports	5,319	5,469	6,946	6,232	5,356	6,717	6,002	6,994	9,330	7,122	7,332	7,703	7,508	6,019	5,170	7,340	8,064	8,900
TOTAL	27,610	28,403	29,953	30,483	30,639	33,260	32,613	34,314	38,225	37,779	37,677	39,346	40,578	38,399	36,619	40,901	41,241	42,900
Ending stocks	318	285	230	204	150	223	212	210	218	330	293	383	240	220	211	172	314	299
Price ^b	\$186.48	\$181.38	\$189.21	\$193.75	\$192.86	\$162.55	\$235.92	\$270.90	\$185.28	\$138.55	\$167.70	\$173.60	\$167.73	\$181.57	\$256.05	\$182.89	\$174.17	\$180.00

^a Includes imports^b Bulk, Decatur, Illinois 48%

Table 7. Soybean Oil Balance Sheet -- Years Beginning October 1

	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
	million pounds																	
Beginning stocks	1,715	1,305	1,786	2,239	1,555	1,103	1,137	2,015	1,520	1,382	1,520	1,995	2,767	2,358	1,489	1,076	1,699	3,019
Production	13,003	13,406	14,346	13,778	13,951	15,613	15,240	15,752	18,143	18,081	17,825	18,420	18,898	18,438	17,080	19,360	20,393	20,285
TOTAL ^a	14,740	14,728	16,132	16,027	15,574	16,733	16,472	17,821	19,723	19,546	19,427	20,488	21,711	20,843	18,875	20,462	22,127	23,364
Domestic	12,082	12,163	12,246	13,053	12,941	12,916	13,465	14,263	15,262	15,655	16,056	16,320	16,833	17,089	16,864	17,439	17,955	19,200
Exports	1,353	779	1,647	1,419	1,529	2,680	992	2,037	3,079	2,372	1,376	1,401	2,519	2,263	936	1,324	1,153	1,500
TOTAL	13,435	12,942	13,893	14,472	14,471	15,596	14,457	16,300	18,341	18,027	17,432	17,721	19,353	19,352	17,800	18,763	19,108	20,700
Ending stocks ^b	1,305	1,786	2,239	1,555	1,103	1,137	2,015	1,520	1,382	1,520	1,995	2,767	2,358	1,491	1,076	1,699	3,019	2,664
Average Price ^b	22.3¢	21.0¢	19.1¢	21.4¢	27.1¢	27.6¢	24.75¢	22.5¢	25.8¢	19.9¢	15.6¢	14.2¢	16.5¢	22.0¢	30.0¢	23.0¢	23.4¢	27.5¢

^a Includes imports^b Bulk, Decatur, Illinois

Table 8. Soybean Production by Country

Year	United States	Brazil ^a	Argentina ^a	Paraguay ^a	China	Other	World	All Foreign
million bushels								
1970	1,127	76	2	3	254	165	1,627	500
1971	1,176	135	3	4	290	126	1,734	558
1972	1,283	184	10	4	320	66	1,867	584
1973	1,547	289	18	7	367	64	2,292	745
1974	1,215	363	18	8	349	54	2,007	792
1975	1,547	413	26	10	367	46	2,409	862
1976	1,288	460	51	14	242	128	2,183	895
1977	1,762	350	99	12	266	154	2,643	881
1978	1,870	557	136	20	278	167	2,847	977
1979	2,261	376	132	21	274	191	3,255	994
1980	1,798	558	129	22	292	176	2,975	1,177
1981	1,989	471	152	22	342	186	3,162	1,173
1982	2,190	542	154	19	332	200	3,437	1,247
1983	1,636	571	257	20	359	213	3,056	1,420
1984	1,861	672	248	35	356	248	3,421	1,561
1985	2,099	518	268	22	386	272	3,565	1,466
1986	1,943	636	257	35	427	303	3,601	1,658
1987	1,938	662	356	40	457	359	3,812	1,874
1988	1,549	852	235	60	428	387	3,506	1,957
1989	1,924	747	395	58	376	445	3,945	2,020
1990	1,926	579	423	48	404	446	3,826	1,900
1991	1,987	709	410	48	357	435	3,946	1,959
1992	2,188	827	417	64	378	434	4,308	2,120
1993	1,871	908	456	66	563	454	4,318	2,447
1994	2,517	952	459	81	588	460	5,057	2,540
1995	2,177	887	457	88	496	487	4,591	2,415
1996	2,380	1,003	412	102	486	474	4,857	2,477
1997	2,689	1,194	717	110	551	545	5,806	3,117
1998	2,741	1,150	735	112	557	577	5,872	3,131
1999	2,654	1,257	779	107	525	527	5,875	3,221
2000	2,758	1,433	1,021	129	566	525	6,432	3,674
2001	2,891	1,598	1,102	130	566	506	6,793	3,902
2002	2,756	1,911	1,304	165	607	500	7,243	4,487
2003	2,454	1,874	1,212	144	565	613	6,862	4,408
2004	3,124	1,947	1,433	149	639	643	7,935	4,811
2005	3,063	2,021	1,488	147	601	692	8,012	4,949
2006	3,188	2,058	1,561	173	595	760	8,335	5,147

^a Harvested in the spring of the following year.

Table 9. South American Soybean Area, Yield and, Production, 1988 to Date

Year	Brazil			Argentina			Paraguay		
	Area	Yield	Production	Area	Yield	Production	Area	Yield	Production
	mil. ha.	t/ha.	mil.t	mil. ha.	t/ha.	mil. t.	mil. ha.	t/ha.	mil. t.
1988-89	12.15	1.94	23.60	4.00	1.63	6.50	0.85	1.90	1.62
1989-90	11.55	1.76	20.34	4.95	2.17	10.75	0.98	1.61	1.58
1990-91	9.75	1.62	15.75	4.75	2.42	11.50	0.89	1.46	1.30
1991-92	9.70	1.99	19.30	4.80	2.32	11.15	0.90	1.44	1.30
1992-93	10.63	2.12	22.50	4.90	2.32	11.35	0.98	1.79	1.75
1993-94	11.44	2.16	24.70	5.40	2.30	12.40	1.05	1.71	1.80
1994-95	11.68	2.22	25.90	5.70	2.19	12.50	1.10	2.00	2.20
1995-96	10.95	2.21	24.15	5.98	2.08	12.43	1.10	2.18	2.40
1996-97	11.80	2.27	26.80	6.26	1.81	11.20	1.20	2.31	2.77
1997-98	13.00	2.50	32.50	6.95	2.80	19.50	1.20	2.49	2.99
1998-99	12.90	2.43	31.30	8.17	2.45	20.00	1.20	2.54	3.05
1999-00	13.60	2.51	34.20	8.58	2.47	21.20	1.15	2.52	2.90
2000-01	13.93	2.80	39.00	10.40	2.67	27.80	1.35	2.61	3.52
2001-02	16.35	2.66	43.50	11.40	2.63	30.00	1.45	2.45	3.55
2002-03	18.45	2.82	52.00	12.60	2.82	35.50	1.55	2.90	4.50
2003-04	21.52	2.37	51.00	14.00	2.36	33.00	1.75	2.23	3.91
2004-05	22.92	2.31	53.00	14.40	2.71	39.00	2.00	2.03	4.05
2005-06	22.00	2.50	55.00	15.20	2.66	40.50	2.00	2.00	4.00
2006-07	21.00	2.67	56.00	15.70	2.71	42.50	2.00	2.35	4.70

Source: USDA, FAS

Table 10. World Oilseed and Soybean Production

Year	Major Oilseeds			Soybeans		
	United States	Ex-United States	Total	United States	Ex-United States	Total
million metric tons						
1977-78	56.5	93.7	150.2	47.95	23.98	71.93
1978-79	58.6	92.0	150.6	50.86	26.62	77.48
1979-80	72.4	98.1	170.5	61.72	31.79	93.51
1980-81	55.8	99.8	155.6	48.77	32.20	80.97
1981-82	64.0	105.5	169.5	54.13	31.93	86.06
1982-83	68.2	110.1	178.3	59.61	33.96	93.57
1983-84	50.4	115.1	165.5	44.52	38.64	84.16
1984-85	59.2	131.7	191.1	50.64	42.50	93.14
1985-86	65.4	130.8	196.2	57.13	39.92	97.05
1986-87	59.4	135.0	194.4	52.87	45.21	98.08
1987-88	60.6	150.0	210.6	52.75	51.06	103.81
1988-89	50.3	153.9	204.2	42.15	53.49	95.64
1989-90	59.3	153.1	212.4	52.35	55.02	107.37
1990-91	60.6	155.1	215.7	52.42	51.57	103.99
1991-92	64.3	160.0	224.3	54.07	53.31	107.38
1992-93	68.4	158.9	227.4	59.61	57.69	117.30
1993-94	59.5	168.4	227.9	50.92	66.58	117.50
1994-95	79.7	181.2	260.9	68.49	69.14	137.63
1995-96	69.1	190.6	259.7	59.24	65.72	124.96
1996-97	74.8	187.0	261.8	64.78	67.40	132.18
1997-98	83.1	203.9	287.0	73.18	84.90	158.07
1998-99	84.4	210.3	294.7	74.60	85.21	159.81
1999-00	82.3	221.1	303.4	72.22	87.68	159.90
2000-01	84.9	228.5	313.4	75.06	100.00	175.06
2001-02	89.8	235.3	325.1	78.67	106.20	184.87
2002-03	83.9	245.7	329.6	75.01	122.11	197.12
2003-04	76.6	258.3	334.9	66.78	119.97	186.75
2004-05	95.9	285.4	381.3	85.01	130.94	215.95
2005-06	95.5	292.8	388.4	83.37	134.67	218.04
2006-07	96.9	298.6	395.4	86.77	140.08	226.85

¹WASDE Jan. 2007 and earlier.

Table 11. Soybean Balance Sheet – Years Beginning September 1

	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08 ^a
	million bushels																		
Carryin	182	239	329	278	292	209	335	183	132	200	348	290	248	208	178	112	256	449	560
Production	<u>1,924</u>	<u>1,926</u>	<u>1,987</u>	<u>2,190</u>	<u>1,870</u>	<u>2,515</u>	<u>2,174</u>	<u>2,380</u>	<u>2,689</u>	<u>2,741</u>	<u>2,654</u>	<u>2,758</u>	<u>2,891</u>	<u>2,756</u>	<u>2,454</u>	<u>3,124</u>	<u>3,063</u>	<u>3,188</u>	<u>2,925</u>
TOTAL ^b	2,109	2,167	2,320	2,470	2,168	2,729	2,514	2,573	2,826	2,944	3,006	3,052	3,141	2,969	2,638	3,242	3,322	3,642	3,489
Crush	1,146	1,187	1,254	1,279	1,276	1,405	1,369	1,436	1,597	1,590	1,578	1,640	1,700	1,615	1,530	1,696	1,739	1,795	1,850
Export	623	557	684	770	589	838	851	882	870	805	975	996	1,064	1,045	887	1,097	947	1,120	1,125
Seed, feed, residual	<u>101</u>	<u>94</u>	<u>103</u>	<u>129</u>	<u>94</u>	<u>151</u>	<u>111</u>	<u>123</u>	<u>159</u>	<u>201</u>	<u>163</u>	<u>169</u>	<u>169</u>	<u>131</u>	<u>109</u>	<u>192</u>	<u>187</u>	<u>166</u>	<u>175</u>
TOTAL	1,870	1,838	2,041	2,178	1,954	2,394	2,331	2,441	2,626	2,596	2,716	2,804	2,933	2,791	2,526	2,986	2,873	2,081	3,150
Carryout	239	329	278	292	209	335	183	132	200	348	290	248	208	178	112	256	449	560	339
U.S. Average price	\$5.70	\$5.75	\$5.58	\$5.60	\$6.40	\$5.48	\$6.77	\$7.35	\$6.47	\$4.93	\$4.63	\$4.54	\$4.38	\$5.53	\$7.34	\$5.74	\$5.66	\$6.10	\$6.50

^a Projected^b Includes imports

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Grain Price OUTLOOK

CORN: FOCUS TURNS TO U.S. WEATHER

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Darrel Good

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Summary

The USDA's March 30 *Grain Stocks* and *Prospective Plantings* report pointed to more abundant supplies of U.S. corn. The March 1 inventory of U.S. corn was larger than expected, confirming a slow down in domestic feed and residual use and suggesting larger year-ending stocks. The pace of exports is also slowing, although domestic use of corn for ethanol production continues to expand. Producer intention to increase corn acreage by 15 percent in 2007 implies adequate corn supplies for the 2007-08 marketing year if the U.S. average yield is at or above trend value. Prices dropped sharply following the release of the reports, but prospects for some delays in corn planting and indications that winter wheat suffered some freeze damage resulted in a substantial recovery in prices by April 9. Prices are expected to remain "jumpy" well into the growing season. If planted acreage is near intentions and the U.S. average yield is near trend value, the 2007-08 marketing year average price would be expected to be near \$3.40. Opportunities to price the crop well above that level are currently available and will likely persist until the market is confident of a large harvest.

Domestic Feed Use Slows

The USDA estimated that March 1, 2007 inventories of corn were at 6.07 billion bushels (Table 1). That estimate is 917 million bushels below the level of stocks a year ago, but about 75 million above the average pre-report guess. The stocks figure implies that 2.865 billion bushels of U.S. corn were used during the second quarter of the 2006-07 marketing year. Apparent use was 36 million larger than the previous record level of use last year. While domestic processing uses and exports were substantially larger than during the second quarter last year, feed and residual use was down 119 million bushels, or 7.3 percent. Feed and residual use during the first half of the year totaled 3.703 million bushels, 174 million (4.5 percent) less than use during the first half of the 2005-06 marketing year. Over the past 6 years, the seasonal pattern of feed and residual use of corn has been fairly consistent, except for 2004-05. In that year, feed and residual use during the first half of the year accounted for only 61.6 percent of the marketing year total. In the other 5 years, use during the first half ranged from 63.1 to 64.5 percent of the total, averaging 63.8 percent. If a "typical" pattern is followed this year, use to date points to a

marketing year total of only 5.805 billion bushels. That would be 336 million (5.5 percent) less than use of a year ago and implies that use during the second half of the current marketing year would be 7.2 percent less than during the same period last year. Such a large decline does not appear likely given the current livestock inventory, particularly if winter wheat damage was significant and wheat prices remain high this summer. We are using a forecast of 5.85 billion bushels, compared to the USDA's forecast released before the March stocks estimate was available of 5.975 billion bushels (Table 2).

If domestic processing use of corn is on pace to reach the USDA projection of 3.535 billion bushels for the year, use during the second quarter of the marketing year was likely near 820 million bushels, 15.8 percent more than used during the same quarter last year. Use during the first quarter of the current year was 13.6 percent larger than use of a year earlier, and the USDA's forecast for the year is 18.6 percent larger than use of a year ago. The USDA projection for the year implies a 21.9 percent year-over-year increase in processing use during the last half of the year. The accelerating rate of use is consistent with the growth in ethanol processing capacity.

Exports of U.S. corn during the second quarter of the marketing year were likely near 528 million bushels, 43 million larger than exports during that quarter last year and the largest for the quarter since 1995-96. Exports during the first half of the current marketing year totaled 1.12 billion bushels, 158 million (16.4 percent) larger than exports during the first half of the 2005-06 marketing year.

The USDA's *Export Sales* report indicated that cumulative exports through March 29, 2007 totaled 1.286 billion bushels, only 14.6 percent more than cumulative shipments last year. Shipments during the last half of the 2005-06 marketing year were quite large, at 1.185 billion bushels. Shipments during the last half of the current marketing year will likely be smaller. Very small shipments were reported for the week ended April 5. The USDA's projection for the year is 2.25 billion, implying 1.13 billion to be shipped from March through August 2007. This is nearly 5 percent less than shipped during that period a year earlier. Outstanding export sales of U.S. corn on March 29, 2007 stood at 380 million bushels, compared to unshipped sales of 345 million last year. The current harvest of an extremely large corn crop in South America, along with continued high corn prices, suggests some softening in the pace of sales of U.S. corn. New sales for the week ended March 29 totaled only 21.6 million bushels. Weekly sales near 26.4 million are needed to reach the USDA projection. It is possible that exports will reach 2.25 billion for the year, but we have trimmed our forecast to 2.225 billion.

Based on the projections of use for the last half of the 2006-07 marketing year, stocks of U.S. corn on September 1, 2007 are forecast at 902 million bushels, or 7.8 percent of the projected marketing year consumption of 11.61 billion bushels. Historical relationships between the marketing year average farm price and the year-ending stocks-to-use ratio, stocks at 7.8 percent of use would point to a marketing year average price near \$2.80. The midpoint of the USDA's early March forecast of the average farm price was \$3.20. The average price received

during the first 7 months of the 2006-07 marketing year was likely near \$2.90. To reach an average of \$3.20 for the year, the average for the 30 percent of the crop left to be sold during the last 5 months of the year would have to be near \$3.90. Such a high average does not appear likely. Based on closing futures prices on the overnight session on April 9, 2007, the average farm price of corn during the last 5 months of the year was projected at 3.70, resulting in a marketing year average near \$3.15. Corn prices are being supported above historic values by strong domestic demand, the need to plant substantially more acres of corn, and the uncertainty about production in an environment of smaller reserves.

Prospects for 2007-08

The USDA's March survey of producer planting intentions revealed plans to plant 90.454 million acres of corn in 2007 (Table 3). Those intentions are 12.127 million larger than planted acreage in 2006, 9.525 million above the recent high in 2004, and 5.866 million more than the modern high in 1976. In absolute terms, the largest increases in corn acreage are planned in Illinois (1.6 million), Iowa (1.3 million), North Dakota (910,000), and Nebraska (900,000). Percentage wise, the largest increases are planned in Arkansas, Georgia, Louisiana, and Mississippi. Producers in those four states plan to expand corn acreage by 1.6 million. Initial intentions for corn plantings reflect a modest reduction in the share of acres in the traditional corn planting areas and a marginal increase in areas outside of the corn belt.

The large planned increase in corn acreage along with 2.959 million more

wheat acres will come primarily at the expense of soybeans (down 8.382 million) and cotton (down 3.127 million). In addition, reductions in acreage of rice (194,000) and sunflowers (151,000) are planned. Somewhat surprisingly, acreage intended for all crops included in the *Prospective Plantings* report, including harvested acreage of hay, is 5.5 million (1.8 percent) larger than actual plantings in 2006.

The immediate question is how many acres of corn will actually get planted in 2007. The price decline following the release of the intentions data along with a cold, wet start to April in the midwest ignited ideas that acreage could fall short of intentions. However, corn prices rebounded sharply following the initial decline and it is a little early to be overly concerned about planting delays in the midwest. Extended delays might result in fewer acres planted to corn, but extensive freeze damage to the winter wheat crop would likely result in additional acreage being planted to corn or sorghum. The most recent experiences with planting delays were in 1995 and 1996. In 1995, actual acreage planted to corn was 3.844 million (5 percent) less than March intentions while in 1996 actual plantings were only 691,000 (0.9 percent) less than March intentions. With current high corn prices, like those of 1996, producers will likely extend the planting window for corn if required by unfavorable weather. At this juncture, acreage near intentions should probably be expected.

The longer term questions center around summer weather conditions and average yield for the 2007 crop. The first issue is establishing a starting point for expected, or trend, yield for 2007. Since 1960, the U.S. average corn yield has been

extremely variable, depending on growing season weather conditions, but has increased at an average of 1.85 bushels per acre per year. Since 1975, the trend increase in average U.S. corn yields has been very similar, at 1.9 bushels per year. Some have observed that yields have increased at a faster rate since 1996. The calculated trend for 1996 through 2006 is 2.6 bushels per acre per year. [calculations provided by Scott Irwin, Department of Agricultural and Consumer Economics, University of Illinois]. Using state average yield data for Illinois, Iowa, and Indiana and correcting for annual deviations from average temperature and precipitation during the growing season, however, reveals that the recent, more rapid rate of increase in trend yields in those states (and therefore most likely for the U.S.) results from more favorable weather over the past 11 years compared to the 21 years prior to 1996.¹ The calculated U.S. trend yield for 2007 based on actual yields since 1975 is 149 bushels per acre. The expected yield under the assumption of average growing season weather would be higher, likely by several bushels. This is the case since trend yield calculations based on actual realized historical yields reflects the historical distribution of weather conditions. Historical weather conditions are not uniformly distributed so that extremely low yields have been more common than extremely high yields. As a result, trend yield based on the assumption of average weather is higher than trend yield based on the historical distribution of actual weather.

¹Based on a forthcoming M.S. thesis by Mike Tannura, Department of Agricultural and Consumer Economics, University of Illinois.

Another consideration for 2007 is whether or not the proportionately larger increase in corn acres in areas that traditionally have lower average yields influence the U.S. trend yield calculation for 2007. Analysis of the regional shift has indicated that the 2007 trend yield might be 0.5 bushels lower than if state shares of acreage remained the same as in 2006.²

A final consideration in forming an average yield expectation for 2007 is the increased amount of corn-on-corn acres in 2007 and whether there will be a "yield drag" on those acres. If, for example, half of the planned increase in corn acres is corn following corn, about 7 percent of the total corn plantings in 2007 would represent additional corn following corn acres. If those acres, on average, experienced a 5 percent lower yield, the overall impact would be a 0.35 percent (0.5 bushel) reduction in the U.S. trend yield. The potential yield drag might be offset by the fact that many of the additional corn-on-corn acres are in higher yielding areas of the country. Overall, the regional shift in acreage along with increased plantings of corn following corn might reduce the U.S. trend yield calculation for 2007 by a maximum of one bushel per acre.

A more important question for 2007, of course, is what will the growing season weather actually be? Statistically, July and August temperature and precipitation are the most important weather variables associated with actual yields. Some have pointed to the possible transition from El Nino to La Nina climate conditions that

²See analysis by Gary Schnitkey, Department of Agricultural and Consumer Economics at the University of Illinois (http://www.farmdoc.uiuc.edu/manage/newsletters/fefo07_07/fefo07_07.html)

might point to an increased probability of adverse growing conditions in the midwest in 2007. Two things can be said at this point. First, the weak El Nino has given way to normal sea surface temperatures, not an La Nina at this time. The National Oceanic and Atmospheric Administration (NOAA) Indicates there is some chance that sea surface temperatures could continue to decline, creating a La Nina sometime over the next three months. Such a development does not appear imminent. Second, the correlation between the development of La Nina conditions and midwest summer weather is not strong. The conclusion at this point is that the 2007 average yield expectation should still be based on trend yield or on the assumption of average weather conditions.

If 90.454 million acres of corn are planted in 2007, area harvested for grain might be near 83 million acres with average growing season weather. A yield of 149 bushels, then, would produce a crop of 12.367 billion bushels. With beginning stocks of 902 million bushels and imports of 10 million bushels, the total supply of corn for the 2007-08 marketing year would be 13.279 billion bushels, 767 million larger than the supply for the current year. With adequate supplies and "reasonable" prices, consumption of U.S. corn will likely increase during the 2007-08 marketing year. The increase will be led by corn used for ethanol production. Those increases could push total domestic processing use of corn to 4.585 billion bushels. U.S. corn exports, however, are expected to decline modestly due to continued high prices and increased competition from South American corn and a rebound in world

wheat production. Those exports are forecast at 2.1 billion bushels. Uncertainty about export demand for U.S. corn centers on China. A shortfall in production there along with escalating domestic consumption could add 100 to 200 million bushels to U.S. corn exports. Domestic feed use of corn may also continue to decline modestly if livestock feeding margins remain tight and feeding of by-product feed from ethanol processing continues to increase. An additional one billion bushels of corn used for ethanol production from corn would produce about 8.8 million tons of by-product feed. If 75 percent of that is fed domestically and 40 percent of that replaced corn in livestock rations, domestic feeding of corn would be reduced by 95 million bushels. We use a forecast of 5.8 billion bushels for feed and residual use of corn during the 2007-08 marketing year. Total consumption of U.S. corn during the 2007-08 marketing year could reach 12.485 billion bushels, leaving year ending stocks at only 794 million bushels, or 6.4 percent of consumption.

Based on relationships prior to 2006-07, the projected year-ending stocks-to-use ratio results in a projected 2007-08 marketing year average farm price of about \$3.05. If prices remain above the level projected by historical stocks and price relationships, similar to the pattern of the current year, a price near \$3.40 might be expected. At the close of overnight trade on April 9, 2007, futures settlement prices pointed to a 2007-08 marketing year average farm price near \$3.95. The market appears to be trading a smaller crop than implied by planting intentions and a trend yield, a stronger demand scenario than forecast here, or a combination of the two.

New Crop Marketing

The current corn futures market is offering pricing opportunities that exceed the 2007-08 marketing year average price likely to result from a trend yield in 2007. However, December 2007 futures are slightly below the \$4.06 price guarantee of crop revenue insurance products. To the extent that revenue guarantees are viewed as put options, aggressive pricing might be considered only at prices above the guarantee. A move above that level has a high probability, resulting from a continuation of spring weather concerns or an emergence of summer weather concerns. In addition, extended planting delays or other weather problems would likely push December 2007 futures above the current contract high of \$4.30.

A conservative pricing strategy, particularly for those without a high level of coverage from a revenue insurance product, is to sell small quantities of new crop corn on a regular schedule through the spring and early summer months when production uncertainty is at a peak.

If a large corn crop does materialize in 2007, basis levels will likely remain weak through the harvest period in some areas. In total, U.S. corn supplies may be only marginally larger than the record supply in the fall of 2005, but supplies at that level will require a considerable amount of temporary storage. In areas with large increases in corn acreage, storage issues could be particularly severe.

Issued by Darrel Good
Extension Economist
University of Illinois

Table 1 Com Quarterly Balance Sheet

	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
	million bushels																							
September 1 stocks	3,523	1,006	1,648	4,040	4,882	4,259	1,930	1,344	1,521	1,100	2,113	850	1,558	426	883	1,308	1,787	1,718	1,899	1,596	1,087	958	2,114	1,967
Production	4,174	7,672	8,875	8,226	7,131	4,929	7,532	7,934	7,475	9,477	6,338	10,051	7,400	9,233	9,207	9,759	9,431	9,915	9,503	8,968	10,089	11,807	11,114	10,535
TOTAL*	7,699	8,680	10,534	12,267	12,016	9,191	9,464	9,282	9,016	10,584	8,472	10,910	8,974	9,672	10,099	11,085	11,232	11,640	11,412	10,578	11,190	12,776	13,237	12,512
September-November																								
Seed, food, ind	227	244	276	295	296	302	312	338	361	370	383	410	417	388	435	450	459	466	492	549	588	643	697	792
Export	493	503	415	318	396	471	582	383	421	488	435	449	660	487	380	450	535	507	448	393	470	499	477	592
Feed, residual	1,326	1,301	1,219	1,348	1,551	1,344	1,487	1,619	1,673	1,814	1,701	1,963	1,778	1,885	2,030	2,118	2,188	2,131	2,200	1,986	2,166	2,175	2,241	2,186
TOTAL	2,046	2,048	1,910	1,961	2,243	2,117	2,381	2,339	2,455	2,672	2,519	2,822	2,856	2,759	2,845	3,018	3,182	3,104	3,140	2,928	3,224	3,317	3,415	3,570
December 1 stocks	5,652	6,631	8,615	10,305	9,771	7,072	7,082	6,940	6,547	7,906	5,937	8,080	6,106	6,903	7,247	8,052	8,039	8,530	8,265	7,638	7,954	9,452	9,815	8,933
Seed, food, ind	212	236	262	281	288	301	313	330	362	365	379	410	405	400	425	434	447	465	482	563	609	637	708	820
Export	506	580	460	313	405	502	682	471	362	463	330	590	562	525	380	465	485	415	448	390	506	439	485	528
Feed, residual	1,069	1,192	1,306	1,463	1,444	1,065	1,276	1,351	1,267	1,401	1,240	1,492	1,344	1,486	1,503	1,460	1,529	1,607	1,540	1,557	1,571	1,620	1,636	1,517
TOTAL	1,787	2,008	2,028	2,057	2,137	1,968	2,271	2,152	1,991	2,229	1,949	2,493	2,311	2,411	2,308	2,359	2,441	2,488	2,471	2,510	2,686	2,696	2,829	2,885
March 1 stocks	3,865	4,623	6,587	8,248	7,636	5,204	4,812	4,789	4,561	5,678	3,996	5,592	3,800	4,494	4,940	5,698	5,602	6,043	5,795	5,132	5,271	6,756	6,987	6,070
Seed, food, ind	253	294	307	333	337	353	376	384	414	414	423	452	433	471	470	495	512	514	539	617	676	700	774	
Export	513	475	201	496	510	592	601	454	371	411	270	568	610	433	350	497	451	455	497	393	465	428	565	
Feed, residual	954	1,019	1,091	1,088	951	841	993	960	1,042	1,146	950	1,159	1,044	1,097	1,084	1,097	1,058	1,153	1,166	1,141	1,166	1,311	1,290	
TOTAL	1,720	1,788	1,599	1,917	1,798	1,786	1,970	1,798	1,828	1,971	1,642	2,180	2,087	2,001	1,904	2,089	2,022	2,122	2,203	2,151	2,307	2,439	2,629	
June 1 stocks	2,145	2,836	4,990	6,332	5,839	3,419	2,843	2,992	2,739	3,709	2,360	3,415	1,718	2,497	3,040	3,616	3,586	3,924	3,597	2,985	2,970	4,321	4,362	
Seed, food, ind	238	293	307	324	331	341	369	374	396	407	429	442	373	460	475	467	486	512	532	611	664	706	803	
Export	374	292	151	365	406	463	503	419	430	301	293	570	396	353	394	572	485	564	512	411	459	452	620	
Feed, residual	527	603	499	761	843	685	627	679	816	891	789	846	527	809	865	792	890	951	958	879	892	1,052	974	
TOTAL	1,139	1,188	957	1,450	1,580	1,489	1,499	1,472	1,642	1,599	1,511	1,858	1,295	1,617	1,734	1,831	1,871	2,027	2,002	1,900	2,015	2,210	2,396	
September 1 stocks	1,006	1,648	4,040	4,882	4,259	1,930	1,344	1,521	1,100	2,113	850	1,558	426	883	1,308	1,787	1,718	1,899	1,596	1,087	958	2,114	1,967	
Annual																								
Seed, food, ind	930	1,067	1,152	1,233	1,251	1,298	1,370	1,425	1,533	1,556	1,613	1,715	1,628	1,714	1,805	1,846	1,913	1,957	2,046	2,340	2,537	2,686	2,981	
Export	1,887	1,850	1,227	1,492	1,716	2,029	2,367	1,727	1,584	1,663	1,328	2,177	2,228	1,797	1,504	1,989	1,937	1,941	1,905	1,588	1,900	1,818	2,147	
Feed, residual	3,876	4,115	4,114	4,660	4,789	3,934	4,362	4,609	4,798	5,252	4,680	5,460	4,693	5,277	5,482	5,468	5,665	5,842	5,864	5,563	5,795	6,158	6,141	
TOTAL	6,693	7,032	6,494	7,385	7,757	7,260	8,120	7,761	7,916	8,471	7,622	9,352	8,548	8,789	8,791	9,298	9,515	9,741	9,815	9,491	10,232	10,662	11,270	

* Includes imports for the entire year

Table 2. Corn Annual Balance Sheet

[illegible]

Projected

^b Includes imports

Table 3. United States Corn Planting Intentions, Actual Plantings, and Acres Harvested

Year	Planted Acreage			Actual	Harvested Acreage
	February/January Intentions	March Intentions	June Intentions		
			thousand acres		
1976	80,822	82,727	84,092	84,588	71,506
1977	84,526	83,923	82,735	84,328	71,614
1978	80,944	80,237	78,717	81,675	71,930
1979	80,676	79,209	79,751	81,394	72,400
1980	83,131	82,022	83,478	84,043	72,961
1981	...	83,977	84,677	84,097	74,524
1982	...	84,735	82,129	81,857	72,719
1983	69,569 ^a	58,812	60,129	60,217	51,479
1984	...	81,766	79,940	80,617	71,897
1985	...	82,021	83,217	83,398	75,209
1986	...	78,066	76,646	76,580	68,907
1987	...	67,556	66,024	66,200	59,505
1988	...	66,926	67,519	67,717	58,250
1989	...	73,253	72,790	72,322	64,783
1990	...	74,804	74,574	74,166	66,952
1991	77,500	76,124	75,909	75,957	68,822
1992		79,007	79,335	79,311	72,077
1993		76,486	74,259	73,239	62,933
1994		78,625	78,767	78,921	72,514
1995		75,323	72,800	71,479	65,210
1996		79,920	80,355	79,229	72,644
1997		81,416	80,227	79,537	72,671
1998		80,781	80,798	80,165	72,589
1999		78,219	77,611	77,386	70,487
2000		77,881	79,579	79,551	72,440
2001		76,693	76,109	75,702	68,768
2002		79,047	78,847	78,894	69,330
2003		79,022	79,066	78,603	70,944
2004		79,004	80,968	80,929	73,631
2005		81,413	81,592	81,779	75,117
2006		78,019	79,366	78,327	70,648
2007		90,454			

^a February

Table 4. United States Corn Yield Estimates

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
	bushels per acre																															
July 1	93.0	90.5	89.4	90.1	95.8	99.3	95.9	...	...	...	...	...	...	...	87.0																	
August 1	87.4	86.7	87.3	96.1	102.1	93.0	104.3	113.9	99.9	107.9	110.6	120.4	121.4	78.5	112.8	117.7	107.8	121.3	116.0	128.4	125.6	118.7	125.3	130.0	134.7	141.9	133.9	125.2	139.9	148.9	139.2	152.2
September 1	85.1	82.8	89.7	100.3	104.6	91.8	107.1	113.9	85.1	106.3	113.3	119.7	119.9	78.5	112.4	121.7	106.1	121.4	113.1	129.0	121.1	120.2	125.2	132.0	132.2	141.8	133.5	125.4	138.5	149.4	143.2	154.7
October 1	86.2	82.7	90.8	100.7	106.4	90.8	109.0	114.2	82.9	105.5	115.1	119.2	119.9	80.2	114.4	120.3	108.8	123.8	110.3	133.8	116.6	123.0	125.8	132.0	133.5	139.6	136.3	127.2	142.2	158.4	146.1	153.5
November 1	87.2	85.5	91.5	101.2	109.2	90.8	109.2	114.2	80.5	105.9	116.6	119.3	120.3	82.3	116.6	119.0	108.6	129.3	103.1	138.4	113.7	126.5	126.4	133.3	134.5	137.7	138.0	127.6	143.2	160.2	148.4	151.2
January 1	86.2	87.4	90.8	101.2	109.4	91.0	109.9	114.8	81.6	106.6	118.0	119.3	119.4	84.6	116.2	118.5	108.6	131.4	100.7	138.6	113.5	127.1	127.0	134.4	133.8	137.1	138.2	130.0	142.2	160.4	147.9	149.1
FINAL	86.4	88.0	90.8	101.0	109.5	91.0	108.9	113.2	81.1	106.7	118.0	119.3	119.8	84.6	116.3	118.5	108.6	131.5	100.7	138.6	113.5	127.1	126.7	134.4	133.8	136.9	138.2	129.3	142.2	160.7	148.0	

Table 5. United States Corn Production Estimates

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
	million bushels																							
July	...	...	...	...	...	5,200																		
August	5,237	7,668	8,266	8,316	7,231	4,479	7,348	7,850	7,418	8,762	7,423	9,214	8,122	8,695	9,276	9,592	9,561	10,369	9,266	8,886	10,064	10,923	10,350	10,976
September	4,390	7,552	8,469	8,268	7,141	4,462	7,321	8,118	7,295	8,770	7,229	9,257	7,832	8,804	9,268	9,738	9,381	10,362	9,238	8,849	9,944	10,961	10,639	11,114
October	4,259	7,498	8,603	8,220	7,139	4,553	7,449	8,022	7,479	8,938	6,962	9,602	7,541	9,012	9,312	9,743	9,467	10,192	9,430	8,970	10,207	11,613	10,857	10,905
November	4,121	7,527	8,717	8,223	7,166	4,671	7,590	7,935	7,479	9,329	6,503	10,010	7,374	9,265	9,359	9,836	9,537	10,054	9,546	9,003	10,278	11,741	11,032	10,745
January	4,204	7,656	8,865	8,253	7,064	4,921	7,527	7,933	7,474	9,479	6,344	10,103	7,374	9,293	9,366	9,761	9,437	9,968	9,507	9,008	10,114	11,807	11,112	10,535
FINAL	4,174	7,672	8,875	8,226	7,131	4,929	7,532	7,934	7,475	9,477	6,338	10,051	7,400	9,233	9,207	9,759	9,431	9,915	9,503	8,967	10,089	11,807	11,114	

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SOYBEANS: ACREAGE DOWN, BUT SUPPLIES TO REMAIN AMPLE

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Darrel Good

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Summary

Stocks of U.S. soybeans on March 1, 2007 were a record 1.784 billion bushels. South America is harvesting a record soybean crop estimated at 4.136 billion bushels. U.S. and world stocks are at record levels and U.S. soybean oil stocks are record large. As a result of the surplus of soybeans, along with high corn prices, U.S. producers revealed intentions to reduce soybean plantings by 8.382 million acres (11 percent) in 2007. With a trend U.S. average yield in 2007, stocks of U.S. soybeans at the end of the 2007-08 marketing year would remain well above 300 million bushels. In addition, if current prices persist through the summer months, Brazil will likely increase soybean plantings for harvest in 2008 by about 10 percent. Outside of significant yield reductions, it is difficult to see a shortage of soybeans developing any time soon. Prices will remain volatile until the market is comfortable that a trend yield is likely. If a trend yield does materialize, some price weakness can be anticipated in late summer and fall months.

Current Supplies Are Large

The USDA's March 1, 2007 soybean stocks estimate of 1.784 billion bushels, implies that 918 million bushels of U.S. soybeans were

consumed during the second quarter of the marketing year (Table 1). Use in the quarter was 21.5 million below the record consumption of 2001-02. However, consumption during the first half of the year was record large, at 1.856 billion bushels. The Census Bureau estimates that the domestic soybean crush during the first half of the 2006-07 marketing year was a record 908.5 million bushels, 3.3 percent larger than the crush during the first half of the 2005-06 marketing year. For the year, the USDA projects the domestic soybean crush at 1.765 billion bushels, 1.5 percent larger than last year's crush. Crush during the first half of the year proceeded at a faster rate than projected for the year. However, the year-over-year rate of increase slowed in the second quarter of the year, particularly in January (1.9 percent) and February (0.4 percent). The slowing of the crush is consistent with ideas that high feed prices have slowed the rate of domestic feeding. That was certainly the case for second quarter corn feeding. Over the past six years, the seasonal pattern of the domestic soybean crush has been very consistent, with the crush during the first half of the year ranging from 50.6 to 52.0 percent of the total for the year. The one exception was 2003-04 when small soybean supplies and high prices resulted in 55.1 percent of the crush in the first half of the year. If 2006-07

followed a typical pattern, crush during the first half of the year points to a marketing year total of 1.775 billion bushels. The slow down in January and February, however, along with the large South American harvest, points to a smaller total for the year.

The magnitude of the crush during the last half of the year will depend on the demand for soybean meal, domestic and export. The USDA has forecast a year over year increase of 1.4 percent in domestic meal consumption, a 3.5 percent increase in exports, and a 1.8 percent increase in total consumption. Total use during the first five months of the marketing year (October 2006 through February 2007) totaled 18.2 million tons, 4.3 percent more than consumed during those same months last year. Through March 29, the U.S. *Export Sales* report indicated that cumulative soybean meal exports for the year were 7.5 percent larger than exports of a year earlier. Some slow down in the year-over-year rate of increase might be expected as the large South American harvest provides more competition for U.S. soybean meal in the export market. The USDA now expects the South American crop to be 311 million bushels (8 percent) larger than the revised, larger estimate for 2006 crop (Tables 5 and 6). In addition, the increased supply of by-product feed from the ethanol industry, along with tightening livestock margins, may slow the domestic rate of soybean meal consumption. We are using a forecast of 1.77 billion bushels for the marketing year crush, reflecting a forecast of a 2.7 percent increase in the consumption of soybean meal for the year (Table 2). Crush during the last half of the year will need to total only 861.5 million bushels to reach that level. That is only 2.5 million more than crushed during the same period last year.

If 1.77 billion bushels of soybeans are crushed during the current marketing year, about 20.054 billion pounds of soybean oil will be produced, assuming a continuation of the seasonally adjusted average oil yield experienced so far this year (11.33 pounds per bushel). During the first five months of the 2006-07 marketing year (October 2006 through February 2007) consumption of U.S. soybean oil totaled 8.33 billion pounds, an 8.4 percent year-over-year increase. Exports during the first 4 months totaled 738 million pounds, 80 percent larger than exports during the previous year. As of March 29, the U.S. *Export Sales* report showed cumulative commercial exports still running 80 percent ahead of last year's pace, although unshipped sales had fallen behind the total of a year ago. For the year, the USDA projects soybean oil exports at 1.5 billion pounds, 30 percent more than exported last year. With current export commitments 48 percent larger than those of a year ago, the USDA projection appears a little conservative, even with larger South American supplies now ready for the market. We are using a projection of 1.55 billion pounds (Table 3).

The USDA projects domestic soybean oil consumption for the 2006-07 marketing year at 18.75 billion pounds, 4.4 percent more than consumed last year. The projected year-over-year increase is well above the trend rate of increase due to the growing consumption of soybean oil for biodiesel production. The Census Bureau started providing estimates of once-refined soybean oil used in biodiesel production in January 2006. Starting in January 2007, estimates of both once-refined and crude soybean oil used in biodiesel production were provided, along with estimates of all fats and oils used in biodiesel production. These estimates are as follows:

	Once Refined Soybean Oil	All Soybean Oil	All Fats and Oils
	— million pounds ---		
Jan 06	87.9		
Feb	77.8		
Mar	104.4		
Apr	106.6		
May	146.0		
Jun	169.0		
Jul	141.5		
Aug	186.2		
Sept	157.2		
Oct	142.6		
Nov	137.5		
Dec	153.2		
Jan 07	133.3	167.8	202.0
Feb	131.5	159.8	181.5

In February 2007, soybean oil used for biodiesel accounted for 11.2 percent of total consumption of U.S. soybean oil (domestic plus exports). The use of all fats and oils for biodiesel production accounted for 7.5 percent of total fats and oils consumption. Through the first four months of the 2006-07 marketing year, domestic soybean oil disappearance exceeded that of a year ago by 5 percent. A 5 percent increase for the year would put use at 18.853 billion pounds, 103 million above the USDA forecast. We are using a forecast of 18.8 billion pounds, resulting in a forecast of year ending stocks of 2.753 billion pounds. That level of stocks would be 266 million pounds less than the inventory at the beginning of the year, but large by historic standards.

The USDA currently forecasts U.S. soybean exports for the 2006-07 marketing year at 1.08 billion bushels, 14 percent larger than exports of a year ago and near the record level of exports in 2004-05. Exports during

the first half of the year totaled 763 million bushels, 22.3 percent more than during the first half of the preceding year. As of March 29, the USDA reported marketing year cumulative exports of 859 million bushels, 20 percent larger than the total of the previous year. The largest year-over-year increases in exports have been to the European Union (88 percent). Exports last year were large during the last half of the marketing year, particularly in the fourth quarter (Table 1). Unshipped export sales as of March 29 were reported at 139 million bushels, compared to only 66 million of outstanding sales on the same date last year. Sales to China account for about half of the increase in outstanding sales. Shipments need to average about 10 million bushels per week from now through August to reach the USDA projection. Shipments are currently running at double that pace, but will slow considerably as South American supplies are available. Still, it appears that exports will exceed the USDA projection. We are using a forecast of 1.1 billion bushels, resulting in year ending stocks of 592 million bushels (Table 4). Our forecast of seed and residual use is relatively large, reflecting the larger than expected residual use during the first half of the marketing year. This is consistent with the USDA forecast. It appears that the size of the 2006 U.S. crop may still be over-estimated.

The projected level of year ending stocks represents 19.4 percent of projected use. Based on historical relationships between the year ending stocks-to-use ratio and the marketing year average farm price, such a level of stocks would suggest an average farm price for the current year of about \$5.40. The U.S. average farm price during the first 7 months of the marketing year, with nearly 80 percent of the crop likely sold, was near \$6.10. Closing futures prices on April

10, pointed to an average farm price for the remainder of the year (20 percent of the crop) of about \$7.50, suggesting a marketing year average price near \$6.40. The average price appears as though it will be almost \$1.00 above the expected price based on the size of the current surplus. High prices are associated with expectations of declining supplies and tighter stocks in the year ahead.

Prospects for 2007-08

The USDA's March survey of U.S. producer planting intentions found intentions to plant 67.14 million acres of soybeans in 2007 (Table 8). Those intentions are 8.382 million acres (11 percent) less than actual plantings of 2006 and would be the smallest plantings since 1996. Regionally, the largest reduction in soybean acreage is planned in the western growing areas. Intentions in those 7 states are for 34 million acres, 4.7 million less than planted last year (Table 9). Intentions are to reduce plantings by 2.85 million acres in the 5 eastern corn belt states and to increase soybean acreage by 194,000, or 9 percent, in the southeast. In absolute terms, the largest declines are planned in Illinois (1.4 million), Iowa (950,000), and North Dakota (800,000).

In addition to reducing soybean acreage, U.S. producers reported intentions to reduce acreage of cotton (20 percent), sunflowers (8 percent), spring wheat (6 percent), rice (7 percent), peanuts (4 percent), and sugar beets (5 percent). Intentions are to increase acres of corn (15 percent), sorghum (9 percent), barley (7 percent) and harvested acreage of hay (4 percent). In addition, winter wheat seedings were increased by 10 percent. Intended acres for all crops included in the *Prospective Plantings* report were 5.5 million larger than actual acreage in 2006.

Actual acreage planted to soybeans has, on occasion, varied from March intentions by a substantial amount. In recent years, the largest deviation was a decline of 2.582 million acres in 2001 (Table 8). In the past two years, acreage has been below March intentions by 1.373 million and 1.878 million acres, respectfully. Actual plantings have been less than March intentions in 5 of the past 7 years. Before that, acreage exceeded March intentions for 9 consecutive years, from 1991 through 1999. Substantial changes from March intentions would not be expected unless relative prices change significantly by mid-May or unusual midwest weather results in a shift in acreage. If 67.14 million acres are planted, harvested acreage near 66.2 million would be expected with a generally favorable growing season.

The U.S. average soybean yield has been fairly consistent over the past three years, ranging from 42.2 to 43 bushels per acre (Table 10). For the most part, soybean yields have benefitted from the relatively good weather conditions since 1996. The one exception was 2003 when an exceptionally wet July in some areas along with widespread damage from soybean aphids reduced the U.S. average yield well below trend value. At this juncture, there is no reason to expect a lower average yield in 2007 than over the past three years. The small regional shift in planted acreage for 2007 does not alter the U.S. average trend yield calculation.¹ The weak El Nino weather pattern has faded, but a La Nina pattern, which is sometimes associated with adverse summer weather in the midwest, has not developed. The National Oceanic and Atmospheric Administration (NOAA) has indicated there is some chance for the

¹See analysis by Gary Schnitkey at: http://www.farmdoc.uiuc.edu/manage/newsletters/fefo07_07/fefo07_07.html

development of La Nina over the next three months. Such a development does not appear imminent and the correlation of La Nina to summer weather is weak.

Harvested acreage of 66.2 million and a U.S. average yield of 42.6 bushels would result in a 2007 harvest of 2.82 billion bushels and a total 2007-08 marketing year supply of 3.417 billion bushels (Table 4). Such a supply would be 225 million bushels (6.2 percent) smaller than the supply for the current year, but the second largest ever.

The strength of demand and resulting consumption of U.S. soybeans during the 2007-08 marketing year depends on a number of fundamental factors. These include the strength of Chinese soybean demand, the size of the 2007 and 2008 soybean crops in South America, and the strength of domestic soybean meal and oil demand. Modest or no expansion in domestic livestock production, along with increased availability of by-product feed from ethanol production, should result in no growth or a modest reduction in domestic soybean meal consumption. An additional one billion bushels of corn processed for ethanol would produce about 8.8 million tons more by-product feed. If 75 percent is used domestically and 60 percent of that replaces soybean meal use, soybean meal consumption would decline by nearly 4 million tons, or about 11 percent. Domestic use of soybean oil for biodiesel will likely continue to increase, but at a slow rate as long as soybean oil prices are above \$.30 per pound. Chinese demand for imported soybeans will be determined by the level of domestic production and the rate of increase in livestock production. With little ability to increase production and continued economic growth, China might import 100 to 120 million bushels more soybeans in 2007-08 than in 2006-07. The origin of those

imports, U.S. or South America, will be a function of availability and price. South America is currently harvesting a record crop and a continuation of current prices points to a substantial increase in soybean acreage for harvest in 2008. The implications of these factors are for a modest decline in the domestic crush of soybeans and a modest increase in exports. We project total consumption at 3.085 billion bushels and year ending stocks at 332 million bushels. The projected year ending stocks-to-use ratio is 10.8 percent.

Historical relationships between the year ending stocks-to-use ratio and the marketing year average farm price would point to a 2007-08 marketing year average price of about \$6.00. If the "premium" in price of about \$1.00 that has been experienced this year persists into 2007-08, an average farm price near \$7.00 might be expected. Closing futures prices on the April 10 pointed to a 2007-08 marketing year average farm price of about \$7.85. There appears to be some downside risk for soybean prices, but substantial weakness is not expected until the crop is planted. Opportunities for pricing old and new crop soybeans are currently very attractive and those opportunities should persist for another several weeks. Barring late season weather problems, price weakness would be expected into late summer and early fall months, particularly if South America responds with increased acreage.

Beyond the 2007-08 marketing year, soybean prices will continue to be tied to corn prices and South American soybean production decisions. If consumption of corn for ethanol production continues to expand, corn prices will likely remain relatively high compared to soybean prices in order to attract more corn acres in the U.S. As that happens, however, soybean prices will have

to be high enough to encourage further expansion in South American production and/or to discourage consumption of soybeans. The price required for expanded acreage in Brazil will depend to some extent on exchange rates. However, it is expected that soybean prices may continue to be higher than was historically the case for a given stocks-to-use ratio.

Issued by Darrel Good
Extension Economist
University of Illinois

Table 1. Soybean Quarterly Balance Sheet

	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
	million bushels																					
September 1 stocks	316.1	536.4	436.4	302.5	182.0	239.1	329.0	278.4	292.3	209.1	334.8	183.5	131.8	199.8	348.5	290.2	247.7	208.0	178.3	112.4	255.7	449.3
Production	2,099.1	1,942.6	1,937.7	1,548.8	1,923.8	1,925.9	1,986.6	2,190.4	1,869.7	2,514.9	2,174.3	2,380.3	2,688.8	2,741.0	2,653.8	2,757.8	2,890.7	2,756.1	2,453.7	3,123.7	3,063.2	3,188.2
TOTAL	2,415.2	2,479.0	2,374.1	1,855.3	2,108.8	2,167.0	2,319.6	2,470.8	2,167.0	2,730.0	2,514.1	2,572.8	2,825.6	2,943.8	3,006.3	3,052.0	3,141.3	2,968.8	2,637.6	3,241.7	3,322.3	3,641.5
September-November																						
Crush	267.5	295.8	293.4	275.4	273.0	304.1	322.0	328.2	329.6	346.2	351.4	360.6	395.8	409.3	426.7	420.9	427.5	417.5	419.4	427.4	442.4	459.2
Export	166.5	216.5	260.8	138.3	168.5	120.1	167.1	235.9	176.0	230.9	233.6	289.7	365.3	268.5	297.8	315.5	348.6	320.4	385.7	405.8	312.6	373.9
Seed, residual	21.5	10.1	64.6	74.8	56.6	58.8	51.5	70.7	79.8	50.9	95.7	97.4	66.9	78.5	98.9	75.6	89.6	112.3	140.5	99.3	63.2	104.6
TOTAL	455.4	522.4	618.8	488.5	498.1	483.0	540.6	634.8	585.4	628.0	681.7	747.7	826.2	758.8	823.4	812.0	865.7	850.2	945.6	932.4	818.2	937.7
December 1 stocks	1,959.8	1,956.6	1,755.3	1,366.8	1,610.7	1,684.0	1,779.0	1,836.0	1,573.6	2,102.0	1,833.4	1,825.1	1,999.4	2,186.4	2,182.7	2,240.0	2,275.6	2,115.4	1,688.7	2,304.6	2,501.4	2,701.4
Crush	281.9	320.1	317.3	286.3	304.3	301.4	323.1	335.2	327.2	371.8	359.0	400.7	443.1	408.6	408.1	417.9	447.6	422.0	423.2	436.2	437.2	449.3
Export	270.9	233.7	258.9	197.0	217.0	179.7	259.6	255.9	212.7	283.5	278.7	333.1	306.4	243.1	315.4	338.4	422.7	425.5	335.1	400.2	311.4	389.0
Seed, residual	35.7	63.8	33.0	-6.7	33.9	12.8	19.6	29.3	12.1	76.5	5.3	35.5	46.9	77.0	63.2	79.8	69.3	66.9	25.9	88.3	84.4	79.8
TOTAL	588.5	617.6	609.2	476.6	555.2	493.9	602.3	620.4	552.0	731.8	643.0	769.3	796.5	728.7	786.7	836.1	939.6	914.4	784.2	924.7	833.0	918.1
March 1 stocks	1,371.3	1,339.0	1,146.1	890.2	1,055.5	1,190.1	1,177.3	1,215.6	1,021.6	1,370.2	1,190.4	1,055.8	1,202.9	1,457.3	1,396.0	1,403.9	1,336.0	1,202.0	905.8	1,381.4	1,669.2	1,784.3
Crush	262.3	297.2	308.3	270.1	290.7	295.5	304.0	325.4	320.4	361.7	334.0	355.7	404.9	396.4	373.9	405.4	429.6	400.2	359.5	430.7	431.3	
Export	226.4	159.3	185.0	135.5	153.2	146.9	148.2	186.7	120.6	216.6	188.5	165.9	120.0	161.9	205.8	220.8	155.0	194.4	117.6	211.2	185.5	
Seed, residual	33.7	45.7	-2.5	20.1	15.7	24.2	29.4	20.1	25.3	0.0	44.9	34.3	84.4	50.4	58.9	69.5	66.5	6.3	19.1	41.1	62.7	
TOTAL	522.4	502.2	490.8	425.7	459.6	466.6	481.6	532.2	466.3	578.3	567.4	555.9	609.2	608.7	621.8	695.7	651.1	600.9	496.2	683.1	679.5	
June 1 stocks	848.9	836.8	655.3	464.5	595.9	723.5	695.7	683.4	555.3	791.9	622.8	499.9	593.7	848.6	774.4	708.2	684.9	602.4	410.6	699.3	990.7	
Crush	241.1	265.5	255.5	225.8	278.4	285.9	304.6	290.0	298.4	325.5	324.9	318.7	353.2	375.4	370.1	395.8	395.0	375.6	327.6	401.8	428.0	
Export	76.3	147.4	97.6	56.2	84.2	110.4	109.0	91.0	79.7	107.0	150.5	93.0	78.7	127.5	171.6	121.3	137.2	104.1	48.5	85.5	137.7	
Seed, residual	-4.9	-12.5	0.3	0.5	-5.8	-1.8	3.1	10.1	-31.9	24.6	-35.2	-43.6	-37.9	-1.3	-55.0	-56.6	-55.3	-54.7	-71.0	-41.6	-23.2	
TOTAL	312.5	400.4	352.8	282.5	356.8	394.5	416.7	391.1	346.2	457.1	439.6	368.1	393.9	501.6	486.7	460.5	476.9	425.0	299.1	445.8	542.4	
September 1 stocks	536.4	436.4	302.5	182.0	239.1	329.0	278.4	292.3	209.1	334.8	183.5	131.8	199.8	348.5	290.2	247.7	208.0	178.3	112.4	255.7	449.3	
Annual																						
Crush	1,052.8	1,178.7	1,174.5	1,057.6	1,146.4	1,186.9	1,253.7	1,278.8	1,275.6	1,405.2	1,369.4	1,435.7	1,595.1	1,589.7	1,578.8	1,650.0	1,599.7	1,615.3	1,529.7	1,696.1	1,738.9	
Export	740.1	756.9	801.7	527.0	622.9	557.1	683.9	769.5	589.0	838.0	851.2	881.7	870.4	801.0	973.8	996.0	1,063.5	1,045.0	887.2	1,102.7	947.2	
Seed, residual	85.9	107.0	95.4	88.7	100.4	94.0	103.6	130.2	85.3	152.0	110.4	123.6	160.3	204.6	166.2	168.3	170.1	130.2	108.5	187.2	186.9	
TOTAL	1,878.8	2,042.6	2,071.6	1,673.3	1,869.7	1,838.0	2,041.2	2,178.5	1,949.9	2,397.0	2,330.9	2,441.0	2,625.8	2,595.3	2,718.8	2,803.1	2,933.3	2,790.5	2,525.5	2,986.0	2,873.0	

Table 2. Soybean Meal Balance Sheet -- Years Beginning October 1

	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
Beginning stocks	173	318	285	230	204	150	223	212	210	218	330	293	383	240	220	211	172	314
Production	27,719	28,325	29,831	30,364	30,514	33,270	32,527	34,210	38,176	37,792	37,591	39,385	40,292	38,213	36,325	40,715	41,242	42,183
TOTAL ^a	27,982	28,688	30,183	30,687	30,788	33,483	32,825	34,524	38,443	38,109	37,970	39,729	40,818	38,619	36,830	41,073	41,555	42,662
Domestic	22,291	22,934	23,007	24,251	25,283	26,542	26,611	27,320	28,895	30,657	30,345	31,643	33,070	32,379	31,449	33,561	33,176	33,732
Exports	5,319	5,469	6,946	6,232	5,356	6,717	6,002	6,994	9,330	7,122	7,332	7,703	7,508	6,019	5,170	7,340	8,064	8,630
TOTAL	27,610	28,403	29,953	30,483	30,639	33,260	32,613	34,314	38,225	37,779	37,677	39,346	40,578	38,399	36,619	40,901	41,241	42,362
Ending stocks	318	285	230	204	150	223	212	210	218	330	293	383	240	220	211	172	314	300
Price ^b	\$186.48	\$181.38	\$189.21	\$193.75	\$192.86	\$162.55	\$235.92	\$270.90	\$185.28	\$138.55	\$167.70	\$173.60	\$167.73	\$181.57	\$256.05	\$182.89	\$174.17	\$195.00

^a Includes imports^b Bulk, Decatur, Illinois 48%

Table 3. Soybean Oil Balance Sheet -- Years Beginning October 1

	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
Beginning stocks	1,715	1,305	1,786	2,239	1,555	1,103	1,137	2,015	1,520	1,382	1,520	1,995	2,767	2,358	1,489	1,076	1,699	3,019
Production	13,003	13,406	14,346	13,778	13,951	15,613	15,240	15,752	18,143	18,081	17,825	18,420	18,898	18,438	17,080	19,360	20,393	20,054
TOTAL ^a	14,740	14,728	16,132	16,027	15,574	16,733	16,472	17,821	19,723	19,546	19,427	20,488	21,711	20,843	18,875	20,462	22,127	23,103
Domestic	12,082	12,163	12,246	13,053	12,941	12,916	13,465	14,263	15,262	15,655	16,056	16,320	16,833	17,089	16,864	17,439	17,955	18,800
Exports	1,353	779	1,647	1,419	1,529	2,680	992	2,037	3,079	2,372	1,376	1,401	2,519	2,263	936	1,324	1,153	1,550
TOTAL	13,435	12,942	13,893	14,472	14,471	15,596	14,457	16,300	18,341	18,027	17,432	17,721	19,353	19,352	17,800	18,763	19,108	20,350
Ending stocks	1,305	1,786	2,239	1,555	1,103	1,137	2,015	1,520	1,382	1,520	1,995	2,767	2,358	1,491	1,076	1,699	3,019	2,753
Average Price ^b	22.3¢	21.0¢	19.1¢	21.4¢	27.1¢	27.6¢	24.75¢	22.5¢	25.8¢	19.9¢	15.6¢	14.2¢	16.5¢	22.0¢	30.0¢	23.0¢	23.4¢	29.5¢

^a Includes imports^b Bulk, Decatur, Illinois

Table 4. Soybean Balance Sheet -- Years Beginning September 1

	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08 ^a
Caryin	182	239	329	278	292	209	335	183	132	200	348	290	248	208	178	112	256	449	592
Production	1,924	1,926	1,987	2,190	1,870	2,515	2,174	2,380	2,689	2,741	2,654	2,758	2,891	2,756	2,454	3,124	3,063	3,188	2,820
TOTAL ^b	2,109	2,167	2,320	2,470	2,168	2,729	2,514	2,573	2,826	2,944	3,006	3,052	3,141	2,969	2,638	3,242	3,322	3,642	3,417
Crush	1,146	1,187	1,254	1,279	1,276	1,405	1,369	1,436	1,597	1,590	1,578	1,640	1,700	1,615	1,530	1,696	1,739	1,770	1,760
Export	623	557	684	770	589	838	851	882	870	805	975	996	1,064	1,045	887	1,097	947	1,100	1,150
Seed, feed,	101	94	103	129	94	151	111	123	159	201	163	169	169	131	109	192	187	180	175
TOTAL	1,870	1,838	2,041	2,178	1,954	2,394	2,331	2,441	2,626	2,596	2,716	2,804	2,933	2,791	2,526	2,986	2,873	3,085	3,085
Caryout	239	329	278	292	209	335	183	132	200	348	290	248	208	178	112	256	449	592	332
U.S. Average	\$5.70	\$5.75	\$5.58	\$5.60	\$6.40	\$5.48	\$6.77	\$7.35	\$6.47	\$4.93	\$4.63	\$4.54	\$4.38	\$5.53	\$7.34	\$5.74	\$5.66	\$6.40	\$7.00

^a Projected^b Includes imports

Table 5. Soybean Production by Country

Year	United States	Brazil ^a	Argentina ^a	Paraguay ^a	China	Other	World	All Foreign
million bushels								
1970	1,127	76	2	3	254	165	1,627	500
1971	1,176	135	3	4	290	126	1,734	558
1972	1,283	184	10	4	320	66	1,867	584
1973	1,547	289	18	7	367	64	2,292	745
1974	1,215	363	18	8	349	54	2,007	792
1975	1,547	413	26	10	367	46	2,409	862
1976	1,288	460	51	14	242	128	2,183	895
1977	1,762	350	99	12	266	154	2,643	881
1978	1,870	557	136	20	278	167	2,847	977
1979	2,261	376	132	21	274	191	3,255	994
1980	1,798	558	129	22	292	176	2,975	1,177
1981	1,989	471	152	22	342	186	3,162	1,173
1982	2,190	542	154	19	332	200	3,437	1,247
1983	1,636	571	257	20	359	213	3,056	1,420
1984	1,861	672	248	35	356	248	3,421	1,561
1985	2,099	518	268	22	386	272	3,565	1,466
1986	1,943	636	257	35	427	303	3,601	1,658
1987	1,938	662	356	40	457	359	3,812	1,874
1988	1,549	852	235	60	428	387	3,506	1,957
1989	1,924	747	395	58	376	445	3,945	2,020
1990	1,926	579	423	48	404	446	3,826	1,900
1991	1,987	709	410	48	357	435	3,946	1,959
1992	2,188	827	417	64	378	434	4,308	2,120
1993	1,871	908	456	66	563	454	4,318	2,447
1994	2,517	952	459	81	588	460	5,057	2,540
1995	2,177	887	457	88	496	487	4,591	2,415
1996	2,380	1,003	412	102	486	474	4,857	2,477
1997	2,689	1,194	717	110	551	545	5,806	3,117
1998	2,741	1,150	735	112	557	577	5,872	3,131
1999	2,654	1,257	779	107	525	527	5,875	3,221
2000	2,758	1,433	1,021	129	566	525	6,432	3,674
2001	2,891	1,598	1,102	130	566	506	6,793	3,902
2002	2,756	1,911	1,304	165	607	500	7,243	4,487
2003	2,454	1,874	1,212	144	565	613	6,862	4,408
2004	3,124	1,947	1,433	149	639	635	7,927	4,803
2005	3,063	2,094	1,488	147	601	688	8,081	5,018
2006	3,188	2,160	1,672	202	595	762	8,580	5,392

^a Harvested in the spring of the following year.

Table 6. South American Soybean Area, Yield and, Production, 1988 to Date

Year	Brazil			Argentina			Paraguay		
	Area	Yield	Production	Area	Yield	Production	Area	Yield	Production
	mil. ha.	t/ha.	mil.t	mil. ha.	t/ha.	mil. t.	mil. ha.	t/ha.	mil. t.
1988-89	12.15	1.94	23.60	4.00	1.63	6.50	0.85	1.90	1.62
1989-90	11.55	1.76	20.34	4.95	2.17	10.75	0.98	1.61	1.58
1990-91	9.75	1.62	15.75	4.75	2.42	11.50	0.89	1.46	1.30
1991-92	9.70	1.99	19.30	4.80	2.32	11.15	0.90	1.44	1.30
1992-93	10.63	2.12	22.50	4.90	2.32	11.35	0.98	1.79	1.75
1993-94	11.44	2.16	24.70	5.40	2.30	12.40	1.05	1.71	1.80
1994-95	11.68	2.22	25.90	5.70	2.19	12.50	1.10	2.00	2.20
1995-96	10.95	2.21	24.15	5.98	2.08	12.43	1.10	2.18	2.40
1996-97	11.80	2.27	26.80	6.26	1.81	11.20	1.20	2.31	2.77
1997-98	13.00	2.50	32.50	6.95	2.80	19.50	1.20	2.49	2.99
1998-99	12.90	2.43	31.30	8.17	2.45	20.00	1.20	2.54	3.05
1999-00	13.60	2.51	34.20	8.58	2.47	21.20	1.15	2.52	2.90
2000-01	13.93	2.80	39.00	10.40	2.67	27.80	1.35	2.61	3.52
2001-02	16.35	2.66	43.50	11.40	2.63	30.00	1.45	2.45	3.55
2002-03	18.45	2.82	52.00	12.60	2.82	35.50	1.55	2.90	4.50
2003-04	21.52	2.37	51.00	14.00	2.36	33.00	1.75	2.23	3.91
2004-05	22.92	2.31	53.00	14.40	2.71	39.00	2.00	2.03	4.05
2005-06	22.23	2.56	57.00	15.20	2.66	40.50	2.00	2.00	4.00
2006-07	21.00	2.80	58.80	15.80	2.88	45.50	2.10	2.62	5.50

Source: USDA, FAS

Table 7. World Oilseed and Soybean Production

Year	Major Oilseeds			Soybeans		
	United States	Ex-United States	Total	United States	Ex-United States	Total
million metric tons						
1977-78	56.5	93.7	150.2	47.95	23.98	71.93
1978-79	58.6	92.0	150.6	50.86	26.62	77.48
1979-80	72.4	98.1	170.5	61.72	31.79	93.51
1980-81	55.8	99.8	155.6	48.77	32.20	80.97
1981-82	64.0	105.5	169.5	54.13	31.93	86.06
1982-83	68.2	110.1	178.3	59.61	33.96	93.57
1983-84	50.4	115.1	165.5	44.52	38.64	84.16
1984-85	59.2	131.7	191.1	50.64	42.50	93.14
1985-86	65.4	130.8	196.2	57.13	39.92	97.05
1986-87	59.4	135.0	194.4	52.87	45.21	98.08
1987-88	60.6	150.0	210.6	52.75	51.06	103.81
1988-89	50.3	153.9	204.2	42.15	53.49	95.64
1989-90	59.3	153.1	212.4	52.35	55.02	107.37
1990-91	60.6	155.1	215.7	52.42	51.57	103.99
1991-92	64.3	160.0	224.3	54.07	53.31	107.38
1992-93	68.4	158.9	227.4	59.61	57.69	117.30
1993-94	59.5	168.4	227.9	50.92	66.58	117.50
1994-95	79.7	181.2	260.9	68.49	69.14	137.63
1995-96	69.1	190.6	259.7	59.24	65.72	124.96
1996-97	74.8	187.0	261.8	64.78	67.40	132.18
1997-98	83.1	203.9	287.0	73.18	84.90	158.07
1998-99	84.4	210.3	294.7	74.60	85.21	159.81
1999-00	82.3	221.1	303.4	72.22	87.68	159.90
2000-01	84.9	228.5	313.4	75.06	100.00	175.06
2001-02	89.8	235.3	325.1	78.67	106.20	184.87
2002-03	83.9	245.7	329.6	75.01	122.11	197.12
2003-04	76.6	258.3	334.9	66.78	119.97	186.75
2004-05	95.9	285.3	381.2	85.01	130.73	215.74
2005-06	95.5	294.8	390.3	83.37	136.56	219.93
2006-07	96.9	306.0	402.9	86.77	146.73	233.50

¹WASDE April 2007 and earlier.

Table 8. Soybean Planting Intentions, Actual Plantings, and Acres Harvested

Year	January Intentions	Mar./April Intentions	June/July Intentions	Actual	Harvested Acreage
			million acres		
1975	57.5	56.6	54.6	54.6	53.8
1976	50.9	49.3	49.0	50.3	49.4
1977	53.1	55.7	59.0	59.0	57.6
1978	63.9	63.7	64.0	64.7	63.3
1979	66.3	68.8	71.6	71.4	70.3
1980	71.6	71.3	70.3	69.9	67.8
1981	----	69.8	68.5	67.5	66.2
1982	69.5 ^a	---	72.2	70.9	69.4
1983	68.8 ^a	65.8 ^b	63.3	63.8	62.5
1984	65.2 ^a	---	68.0	67.8	66.1
1985	64.4 ^a	---	63.3	63.1	61.6
1986	---	62.0	61.8	60.4	58.3
1987	---	56.9	58.7	58.180	57.172
1988	---	58.0	58.5	58.840	57.373
1989	---	61.7	61.3	60.820	59.282
1990		59.42	58.05	57.795	56.283
1991	58.5	57.12	59.78	59.180	58.169
1992		57.42	59.03	59.180	58.233
1993		59.30	61.58	60.085	57.307
1994		61.12	61.78	61.620	60.809
1995		61.45	63.105	62.495	61.544
1996		62.478	63.895	64.195	63.349
1997		68.800	70.850	70.005	69.110
1998		72.000	72.720	72.025	70.441
1999		73.105	74.205	73.730	72.446
2000		74.871	74.501	74.266	72.408
2001		76.657	75.416	74.075	72.975
2002		72.966	72.993	73.963	72.497
2003		73.182	73.653	73.404	72.476
2004		75.411	74.809	75.208	73.958
2005		73.910	73.103	72.032	71.251
2006		76.895	74.930	75.522	74.602
2007		67.140			

^a February 1^b May 1

Table 9. Planted Acres of Soybeans by Region

Region	Western Corn Belt ^a		Eastern Corn Belt ^b		Mid-South ^c		Southeast ^d		East Coast ^e		United States	
	000 acres	%	000 acres	%	000 acres	%	000 acres	%	000 acres	%	000 acres	%
1976	16,145	32.1	14,530	28.9	13,630	27.1	4,799	9.6	1,122	2.3	50,226	100.0
1979	23,370	32.7	19,620	27.5	18,470	25.9	8,360	11.7	1,591	2.2	71,411	100.0
1986	24,875	41.2	18,300	30.3	10,995	18.2	4,680	7.8	1,535	2.5	60,385	100.0
1987	24,120	41.5	18,580	31.9	10,330	17.8	3,675	6.3	1,475	2.5	58,180	100.0
1988	24,310	41.3	18,680	31.7	10,460	17.8	3,810	6.5	1,580	2.7	58,840	100.0
1989	24,790	40.8	19,020	31.3	10,750	17.7	4,460	7.3	1,800	2.9	60,820	100.0
1990	23,750	41.1	18,490	32.0	10,270	17.2	3,650	6.3	1,635	2.8	57,795	100.0
1991	26,035	44.0	19,420	32.8	8,990	15.2	3,005	5.1	1,730	2.9	59,180	100.0
1992	25,400	42.9	20,000	33.8	8,980	15.2	2,915	5.2	1,715	2.9	59,180	100.0
1993	25,300	42.1	20,410	34.0	9,690	16.1	2,915	4.9	1,770	2.9	60,085	100.0
1994	27,220	44.1	20,510	33.3	9,220	15.0	2,875	4.7	1,795	2.9	61,620	100.0
1995	28,210	45.1	21,130	33.8	9,130	14.7	2,290	3.6	1,735	2.8	62,495	100.0
1996	28,250	44.0	22,370	34.8	9,390	14.6	2,565	4.0	1,620	2.5	64,195	100.0
1997	32,450	46.4	22,610	32.3	10,390	14.8	2,777	4.0	1,778	2.5	70,005	100.0
1998	33,700	46.8	23,650	32.8	10,180	14.1	2,690	3.8	1,805	2.5	72,025	100.0
1999	35,800	48.5	24,100	32.7	9,700	13.2	2,360	3.2	1,770	2.4	73,730	100.0
2000	37,050	49.9	24,050	32.4	9,010	12.1	2,230	3.0	1,926	2.6	74,266	100.0
2001	37,700	50.9	24,650	33.3	7,685	10.4	2,135	2.9	1,905	2.5	74,075	100.0
2002	37,070	50.1	24,740	33.5	8,170	11.0	2,145	2.9	1,838	2.5	73,963	100.0
2003	37,650	51.3	23,770	32.4	7,990	11.3	2,253	3.0	1,741	2.4	73,404	100.0
2004	38,000	50.5	23,550	31.4	9,100	12.1	2,579	3.4	1,979	2.6	75,208	100.0
2005	36,350	50.5	23,010	31.9	8,485	11.8	2,259	3.1	1,928	2.7	72,032	100.0
2006	38,700	51.2	24,100	31.9	8,725	11.6	2,092	2.8	1,905	2.5	75,522	100.0
2007	34,000	50.6	21,250	31.7	7,800	11.6	2,286	3.4	1,804	2.7	67,140	100.0

^a Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota^b Illinois, Indiana, Michigan, Ohio, Wisconsin^c Arkansas, Kentucky, Louisiana, Mississippi, Oklahoma, Tennessee, Texas^d Alabama, Florida, Georgia, North Carolina, South Carolina^e Delaware, Maryland, New Jersey, New York, Pennsylvania, Virginia, West Virginia

Table 10. United States Soybean Yield Estimates

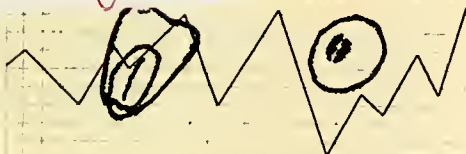
	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
	million bushels																											
August 1	30.3	27.4	30.2	32.3	29.7	30.5	31.5	32.9	34.7	26.0	32.3	32.5	31.8	35.8	33.8	37.6	36.4	36.3	39.5	39.5	39.2	40.7	38.7	36.5	39.4	39.1	38.7	39.6
September 1	30.9	27.0	31.2	32.6	24.9	30.3	33.2	33.1	34.0	25.9	32.0	32.4	31.0	35.9	34.0	38.2	37.0	35.8	39.3	40.6	37.9	39.5	38.2	37.0	36.4	38.5	39.6	41.8
October 1	31.5	26.0	31.5	32.4	24.7	29.5	33.9	33.3	34.2	26.4	32.6	32.3	33.0	36.3	33.7	40.5	35.5	37.0	39.0	38.7	37.0	38.7	39.2	37.0	34.0	42.0	41.6	42.8
November 1	31.8	26.5	31.0	32.4	25.0	28.5	34.2	33.8	34.1	26.6	32.8	33.7	33.5	37.3	32.7	41.5	35.4	37.9	39.2	38.6	36.7	38.0	39.4	37.5	33.8	42.6	42.7	43.0
January 1	32.2	26.8	30.4	32.2	25.7	28.2	34.1	33.8	33.7	26.8	32.4	34.0	34.3	37.6	32.0	41.9	34.9	37.6	39.0	38.9	36.5	38.1	39.6	37.8	33.4	42.5	43.3	42.7
FINAL	32.1	26.5	30.1	31.5	26.2	28.1	34.1	33.3	33.9	27.0	32.3	34.1	34.2	37.6	32.6	41.4	35.3	37.6	38.9	38.9	36.6	38.1	39.6	38.0	33.9	42.2	42.2	43.0

Table 11. United States Soybean Production Estimates

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
	million bushels																											
August 1	2,130	1,880	2,017	2,293	1,843	2,035	1,959	1,979	2,000	1,474	1,905	1,836	1,869	2,079	1,902	2,282	2,246	2,300	2,744	2,825	2,870	2,989	2,867	2,628	2,862	2,877	2,791	2,928
September 1	2,174	1,831	2,089	2,314	1,535	2,028	2,063	1,980	1,957	1,472	1,889	1,835	1,817	2,085	1,909	2,316	2,285	2,270	2,746	2,909	2,778	2,900	2,834	2,656	2,643	2,836	2,856	3,093
October 1	2,213	1,757	2,107	2,300	1,517	1,972	2,108	1,992	1,968	1,501	1,926	1,823	1,934	2,108	1,891	2,458	2,190	2,346	2,722	2,769	2,696	2,823	2,907	2,654	2,468	3,107	2,967	3,189
November 1	2,236	1,775	2,077	2,300	1,535	1,902	2,129	2,009	1,960	1,512	1,937	1,904	1,962	2,167	1,834	2,523	2,183	2,403	2,736	2,763	2,673	2,777	2,923	2,690	2,452	3,150	3,043	3,204
January 1	2,268	1,817	2,030	2,277	1,595	1,861	2,099	2,007	1,905	1,539	1,927	1,922	1,986	2,197	1,809	2,558	2,152	2,382	2,727	2,757	2,643	2,770	2,891	2,730	2,418	3,141	3,086	3,188
FINAL	2,261	1,798	1,989	2,190	1,636	1,861	2,099	1,943	1,938	1,549	1,924	1,926	1,987	2,190	1,870	2,515	2,174	2,380	2,689	2,741	2,654	2,758	2,891	2,756	2,454	3,124	3,063	



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Grain Price OUTLOOK

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CORN: MORE ACRES, WHAT ABOUT YIELD?

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Darrel Good

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Summary

June 1 stocks of U.S. corn were estimated at 3.534 billion bushels, 828 million less than the inventory of a year earlier, but about 75 million more than expected by the market. The stocks figure implies a slow down in domestic corn feeding during the third quarter of the marketing year, even though livestock numbers remained large. Year ending stocks will not be as tight as projected before the June stocks estimate was released.

The USDA's June *Acreage* report indicated that U.S. producers planted 92.888 million acres of corn in 2007, 2.434 million more than intentions reported in March and 14.561 million more than planted in 2006. The USDA projects acreage harvested for grain at 85.418 million acres and calculates the trend yield at 150.3 bushels, pointing to a 2007 harvest of 12.838 billion bushels, 2.3 billion larger than the 2006 crop and 1.031 billion larger than the previous record crop of 2004. Our expectation is very near that, at 12.81 billion. A crop at that level would result in some build-up in stocks during the 2007-08 marketing year. However, with the rapid expansion in use of corn for ethanol production, U.S. corn acreage will likely have to increase again in 2008 to maintain supplies at a level to accommodate all users at reasonable prices.

Corn prices, and particularly the new crop basis, will remain weak into harvest if the final two months of the growing season point to an average yield above 150 bushels per acre.

Basis and cash prices are expected to rebound after harvest in order to ensure large corn acreage in 2008. Based on conditions in mid-July, a 2007-08 marketing year average farm price of \$3.30 is expected. At the close of trade on July 17, the futures market reflected a 2007-08 average farm price near \$3.35.

Stocks Larger Than Expected

The USDA's June *Grain Stocks* report showed June 1, 2007 corn inventories of 3.534 billion bushels, 828 million less than inventories of a year earlier and the smallest inventory for that date in three years (Table 1). The stocks estimate implies that 2.538 billion bushels of U.S. corn were used during the third quarter of the 2006-07 marketing year. That is 91 million less than the record consumption for the quarter established last year. Census Bureau estimates show that U.S. corn exports totaled 479 million bushels during the quarter, 86 million less than exported in the same quarter last year. Based on USDA export estimates for June and the first half of July, cumulative export shipments reached 1.79 billion bushels, through the first 45 weeks of the year. To reach the USDA projection of 2.1 billion bushels for the year, shipments during the final 7 weeks of the marketing year need to total 310 million bushels, or about 44 million per week. It appears that exports may fall a little short of the USDA forecast. Exports for the year are projected at 2.075 billion bushels.

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Use of corn for food and industrial purposes during the third quarter of the year is estimated at 922 million bushels, 148 million more than during the same quarter a year ago. The increase reflected the rapid expansion in ethanol production that is still underway. The USDA projects corn use for ethanol for the entire marketing year at 2.15 billion bushels, and corn use for all food and industrial purposes at 3.525 billion bushels.

Feed and residual use of corn during the third quarter is calculated at a 7 year low of 1.137 billion bushels, 153 million less than use in the previous year. The slow down in feed and residual use of corn in the face of expanding broiler and livestock numbers suggests that other feed ingredients were substituted for high-priced corn. Increased production of distillers dried grain and relatively low priced soybean meal apparently replaced some corn in livestock rations. For the year, feed and residual use of corn appears likely to reach only 5.775 billion bushels, the lowest level in four years. Use could even be less if substantial quantities of low quality hard red winter wheat are fed this summer. The USDA projects feed and residual use of corn at only 5.75 billion bushels.

Based on current forecasts of marketing year consumption of corn, stocks of old-crop corn on September 1, 2007 are forecast at 1.137 billion bushels (Table 2). That projection is 830 million below the level of stocks at the beginning of the marketing year, but well above earlier forecasts.

New Crop Prospects

The USDA's June *Acreage* report estimated planted acreage of corn in the U.S. in 2007 at 92.888 million acres, 2.434 million more than indicated in the March *Prospective Plantings* report and 14.561 million more than planted in 2006 (Table 3). All areas of the country experienced large year-over-year increases in corn acreage. Plantings increased by 1.9 million acres in Illinois, 1.7 million in Iowa, 1.1 million in Indiana, and 1.0 million in Nebraska.

Acreage exceeded March intentions by 400,000 in Iowa and Indiana, 350,000 in Ohio, and 300,000 in Illinois and Minnesota. There is no particular factor that explains the large increase from intentions. Planting progress was generally timely and corn prices actually moved lower following the release of the *Prospective Plantings* report. The USDA's June report projected corn acreage harvested for grain in 2007 at 85.418 million acres, 14.77 million more than harvested in 2006. Harvested acreage will be influenced by late season growing conditions.

The primary focus in the corn market is now on weather, crop conditions, and expected yield for 2007. There is some debate about the magnitude of the trend increase in the U.S. average yield. Since 1960, the U.S. average yield has increased about 1.85 bushels per acre per year. Based on a continuation of that trend, the trend yield in 2007 is 148.7 bushels per acre. Using an econometric model fit over 1990-2006 using trend, July weather, and planting progress, the USDA calculates the likely yield for 2007 at 150.3 bushels per acre. Observing the more rapid rate of increase in yields since 1996, others calculate the 2007 trend yield at higher values. Many attribute the recent, more rapid increase in yields to expanded adoption of biotechnology varieties. The USDA estimates that biotech varieties were planted in 61 percent of the acres in 2006 and 73 percent in 2007. In addition, more widespread application of fungicides may contribute to expectations for an increase in the trend yield. However, it appears that the more rapid rate of increase in yields over the past 10 years or so is more related to generally favorable weather than to more rapid development and adoption of yield-enhancing technology. Yield-enhancing technology may be developed and adopted at a more rapid pace in the future, but through 2006 there was no evidence of a more rapid increase in trend yields, after adjusting for weather conditions.

Prior to the USDA's August *Crop Production* report, yield expectations are based primarily

on trend calculations adjusted for the condition of the crop. The USDA reports crop condition for the 18 major corn producing states each Monday afternoon. Historically, there has been a strong correlation between the U.S. average trend-adjusted yield and the percent of the crop rated in good or excellent condition in the last report of the season. The linear trend from 1960 through 2006 is used in this model. The relationship is as follows:

U.S. average yield = $108.25 + .6327 \times$ percent of the crop rated good or excellent

Using this model, crop ratings explain about 81 percent of the annual variation in the trend adjusted yield. That relationship can be used to project the U.S. average yield, but requires the anticipation of the final crop ratings. Since there is some debate about trend values, there is uncertainty about final crop ratings, and there is not perfect correlation between crop condition and yield, the model is only useful as a guide. For example, 64 percent of the U.S. corn crop was rated in good or excellent condition as of July 15. If ratings were maintained at this level through the season, the model would project an average yield of 148.7 bushels. Assuming that crop conditions will improve somewhat following mid-July rainfall and that August weather is normal a yield forecast of about 150 bushels seems reasonable at this point, but actual yield could deviate substantially; depending on growing conditions into early September. Yield forecasts from others are currently in the range of 147 to 160 bushels.

An average yield of 150 bushels with harvested acreage at 85.4 million would result in a crop of 12.81 billion bushels. With carryover supplies of 1.137 billion, and imports of 15 million, total available supplies for the 2007-08 marketing year would be 13.962 billion bushels, 1.45 billion more than last year's supply, but only 725 million more than the record supply of 2005-06 (Table 2).

Consumption of U.S. corn is expected to increase substantially during the 2007-08

marketing year if supplies are adequate and prices are at reasonable levels. The increase will once again be led by expanding ethanol production. As of July 12, 2007, the Renewable Fuels Association indicated that 122 ethanol plants are currently in operation with total production capacity of 6.39 billion gallons. Seven of those plants were expanding capacity and an additional 74 plants were under construction. The completion of these projects would add 6.19 billion bushels of ethanol production capacity, roughly doubling the amount of corn consumed for ethanol production. Not all of those projects will be completed in the 2007-08 marketing year. The USDA projects corn use for ethanol during the 2007-08 marketing year at 3.4 billion bushels, 58 percent more than used during the 2006-07 marketing year. Given the large profit incentive, it is likely that use will exceed that projection. We are using a forecast of 3.5 billion bushels of corn for ethanol production. Use for all domestic food and industrial purposes may be near 4.9 billion bushels.

Export demand for U.S. corn is difficult to forecast. The 2007 corn crops in Brazil and Argentina totaled 2.854 billion bushels, 590 million larger than the 2006 crops. The USDA expects Brazilian production to repeat the record 2007 production of 1.97 billion bushels again in 2008 and that Argentine production will increase by about 60 million bushels. The USDA also projects that the 2007 South African corn crop will be 157 million bushels larger than the 2006 harvest, but that exports will only grow by 10 million bushels. The large South American crops will provide competition for U.S. exports during the 2007-08 marketing year. However, the USDA projects an increase of only 20 million bushels in Argentine exports and no increase in Brazilian shipments. The most uncertainty centers around China. The 2006 harvest was a record 5.63 billion bushels and the 2007 crop is expected to be even larger at 5.83 billion bushels. Even so, Chinese corn exports are expected to decline from 177 million bushels in 2006-07 to 118 million bushels in 2007-08, as domestic use

increases by nearly 200 million bushels to supply the rapidly expanding pork industry. It appears that U.S. exports during the 2007-08 marketing year could be near the 2.1 billion bushels. The USDA projects exports at 2 billion bushels. Sales of the 2007 crop have started briskly, with sales standing at 202 million bushels as of July 5, more than double the level of new crop sales a year earlier. In addition, it appears that unusually large quantities of sales for the 2006-07 marketing year will be rolled into the 2007-08 marketing year.

Feed and residual use of corn will be influenced by the rate of expansion of broiler and livestock production and the relative price of feed ingredients. An additional 1.25 billion bushels used for ethanol production could replace about 140 million bushels of corn in domestic livestock rations. Even with some continued expansion in livestock production, feed use of corn could decline to about 5.7 billion bushels during the 2007-08 marketing year.

At this juncture, it appears that corn consumption during the 2007-08 marketing year could be only slightly less than the size of the crop, resulting in very little build-up in stocks. This expectation differs from that of the USDA. In the report of July 12, 2007, the USDA forecast September 1, 2007 stocks at 1.137 billion bushels and September 1, 2008 stocks at 1.502 billion bushels.

Price Prospects

Our projections of likely production, consumption, and ending stocks for the 2007-08 marketing year result in a year ending stocks-to-use ratio of 9.9 percent, about equal the 10 percent we expect for the current marketing year. For the current marketing year, the average farm price will be near \$3.05 per bushel. That price was significantly influenced by the large level of early sales at what turned out to be low prices. The average farm price received in September 2006 was only \$2.20 and the price in October was only \$2.54. Easily 40 percent of the

2006 crop was sold in the first four months of the marketing year at an average price of only about \$2.70. Most early sales of the 2007 crop have been made at much higher prices than the sales of a year ago. In addition, given that early sales were a "mistake" last year, sales have likely been much smaller so far this year. We anticipate a 2007-08 marketing year average farm price near \$3.30. At the close of trade on July 17, the futures market reflected an average farm price of about \$3.35 per bushel. On July 12, the USDA forecast the 2007-08 marketing year average price in a range of \$2.80 to \$3.40.

The price of corn for the 2007-08 marketing year will likely trade in an extremely wide range. For the next few weeks, progress and condition of the crop will be the primary price influencing factors. The USDA will release the first crop production forecast of the season on August 10. That report will set the stage for price movement into harvest. If a large crop is expected, weakness in futures prices and basis levels will likely occur into the harvest period. Many observers expect a shortage of storage capacity to pressure an already weak new crop basis. In general we expect only modestly more shortages of storage than has occurred the last three years, but more severe problems on a regional basis. Substantial new storage capacity has been constructed, but widespread use of temporary facilities will be required again this year.

Even with a large crop, we expect a recovery in basis and cash prices after harvest. Corn prices will have to recover fairly quickly in order to give producers motivation to maintain or increase acreage in 2008. While the substantially higher prices being offered for the 2008 crop will provide part of that motivation, producers will also likely have to be motivated by higher spot cash prices. The level of prices required will depend to a large extent on the price of soybeans. The price of soybeans after harvest will depend on the size of the 2007 U.S. crop and the magnitude of planted acreage in South America. The

ratio of November 2007 soybean futures to December 2007 corn futures on July 17 was 2.56 to 1. The ratio for 2008 was 2.3 to 1. Both ratios favor soybean production over corn production. At a minimum, that ratio will have to be reduced in order to encourage corn production in the U.S. in 2008. A combination of lower soybean prices and higher corn prices appears most likely.

Timing of pricing decisions for the 2007 crop will be difficult if prices are as volatile as anticipated. In general, however, prices are expected to remain at high levels resulting in numerous opportunities for profitable sales. For those with on-farm storage, the combination of weak new crop basis and large carry in the futures market suggests that pricing for delivery late in 2007-08 marketing year offers the opportunity for very good storage returns. On July 17, 2007, for example, the harvest bid in central Illinois was \$.76 under July 2008 futures. If the basis improves to a typical level of \$.15 under July by June of 2006, the market is offering a storage return of \$.61 per bushel. At 8 percent interest, the cost of holding \$3.00 corn for 8 months is only \$.16.

Issued by Darrel Good
Extension Economist
University of Illinois

Table 1. Com Quarterly Balance Sheet

	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
	million bushels																							
September 1 stocks	3,523	1,006	1,648	4,040	4,882	4,259	1,930	1,344	1,521	1,100	2,113	850	1,558	426	883	1,308	1,787	1,718	1,899	1,596	1,087	958	2,114	1,967
Production	4,174	7,672	8,875	8,226	7,131	4,929	7,532	7,934	7,475	9,477	6,338	10,051	7,400	9,233	9,207	9,759	9,431	9,915	9,503	8,968	10,089	11,807	11,114	10,535
TOTAL ^a	7,699	8,680	10,534	12,267	12,016	9,191	9,464	9,282	9,016	10,584	8,472	10,910	8,974	9,672	10,099	11,085	11,232	11,640	11,412	10,578	11,190	12,776	13,237	12,512
September-November																								
Seed, food, ind.	227	244	276	295	296	302	312	338	361	370	383	410	417	388	435	450	459	466	492	549	588	643	697	792
Export	493	503	415	318	396	471	582	383	421	488	435	449	660	487	380	450	535	507	448	393	470	499	477	592
Feed, residual	1,326	1,301	1,219	1,348	1,551	1,344	1,487	1,619	1,673	1,814	1,701	1,963	1,778	1,885	2,030	2,118	2,188	2,131	2,200	1,986	2,166	2,173	2,241	2,186
TOTAL	2,046	2,048	1,910	1,961	2,243	2,117	2,381	2,339	2,455	2,672	2,519	2,822	2,856	2,759	2,845	3,018	3,182	3,104	3,140	2,928	3,224	3,315	3,415	3,570
December 1 stocks	5,652	6,631	8,615	10,305	9,771	7,072	7,082	6,940	6,547	7,906	5,937	8,080	6,106	6,903	7,247	8,052	8,039	8,530	8,265	7,638	7,954	9,452	9,815	8,933
Seed, food, ind.	212	236	262	281	288	301	313	330	362	365	379	410	405	400	425	434	447	465	482	563	609	637	708	818
Export	506	580	460	313	405	502	682	471	362	463	330	590	562	525	380	465	465	415	448	390	506	439	485	517
Feed, residual	1,069	1,192	1,306	1,463	1,444	1,065	1,276	1,351	1,267	1,401	1,240	1,492	1,344	1,486	1,503	1,460	1,529	1,607	1,540	1,557	1,571	1,622	1,636	1,532
TOTAL	1,787	2,008	2,028	2,057	2,137	1,868	2,271	2,152	1,991	2,229	1,949	2,493	2,311	2,411	2,308	2,359	2,441	2,488	2,471	2,510	2,686	2,698	2,829	2,867
March 1 stocks	3,865	4,623	6,587	8,248	7,636	5,204	4,812	4,789	4,561	5,678	3,996	5,592	3,800	4,494	4,940	5,698	5,602	6,043	5,795	5,132	5,271	6,756	6,987	6,068
Seed, food, ind.	253	294	307	333	337	353	376	384	414	414	423	452	433	471	470	495	512	514	539	617	676	700	774	22
Export	513	475	201	496	510	592	601	454	371	411	270	568	610	433	350	497	451	455	497	393	465	428	565	479
Feed, residual	954	1,019	1,091	1,088	951	841	993	960	1,042	1,146	950	1,159	1,044	1,097	1,084	1,097	1,058	1,153	1,166	1,141	1,166	1,311	1,290	1,137
TOTAL	1,720	1,788	1,599	1,917	1,798	1,786	1,970	1,798	1,828	1,971	1,642	2,180	2,087	2,001	1,904	2,089	2,022	2,122	2,203	2,151	2,307	2,439	2,629	2,538
June 1 stocks	2,145	2,836	4,990	6,332	5,839	3,419	2,843	2,992	2,739	3,709	2,360	3,415	1,718	2,497	3,040	3,616	3,586	3,924	3,597	2,985	2,970	4,321	4,362	3,534
Seed, food, ind.	238	293	307	324	331	341	369	374	396	407	429	442	373	460	475	467	496	512	532	611	664	707	802	
Export	374	282	151	365	406	463	503	419	430	301	293	570	396	353	394	572	485	564	512	411	459	452	620	
Feed, residual	527	603	499	761	843	685	627	679	816	891	789	846	527	809	865	792	890	951	958	879	892	1,051	974	
TOTAL	1,139	1,188	957	1,450	1,580	1,489	1,499	1,472	1,642	1,599	1,511	1,858	1,295	1,617	1,734	1,831	1,871	2,027	2,002	1,900	2,015	2,210	2,396	
September 1 stocks	1,006	1,648	4,040	4,882	4,259	1,930	1,344	1,521	1,100	2,113	850	1,558	426	883	1,308	1,787	1,718	1,899	1,596	1,087	958	2,114	1,967	
Annual																								
Seed, food, ind.	930	1,067	1,152	1,233	1,251	1,298	1,370	1,425	1,533	1,556	1,613	1,715	1,628	1,714	1,805	1,846	1,913	1,957	2,046	2,340	2,537	2,687	2,981	
Export	1,887	1,850	1,227	1,492	1,716	2,029	2,367	1,727	1,584	1,663	1,328	2,177	2,228	1,797	1,504	1,989	1,937	1,941	1,905	1,588	1,900	1,818	2,147	
Feed, residual	3,876	4,115	4,114	4,680	4,789	3,934	4,382	4,609	4,798	5,252	4,680	5,460	4,893	5,277	5,482	5,468	5,665	5,842	5,864	5,563	5,795	6,157	6,141	
TOTAL	6,693	7,032	6,494	7,385	7,757	7,260	8,120	7,761	7,916	8,471	7,622	9,352	8,548	8,789	8,791	9,298	9,515	9,741	9,815	9,491	10,232	10,662	11,270	

^a Includes imports for the entire year.

Table 2. Corn Annual Balance Sheet

	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08 ^a
Carryin	1,930	1,344	1,521	1,100	2,113	850	1,558	426	883	1,308	1,787	1,718	1,899	1,596	1,087	958	2,114	1,967	1,137
Production	7,532	7,934	7,475	9,477	6,338	10,051	7,400	9,233	9,207	9,759	9,431	9,915	9,503	8,968	10,089	11,807	11,114	10,535	12,810
TOTAL ^b	9,464	9,282	9,016	10,584	8,472	10,910	8,974	9,672	10,099	11,085	11,232	11,659	11,412	10,578	11,190	12,776	13,237	12,512	13,962
Seed, food, industrial	1,370	1,425	1,533	1,556	1,613	1,715	1,628	1,714	1,805	1,846	1,913	1,957	2,046	2,340	2,537	2,686	2,981	3,525	4,900
Export	2,367	1,727	1,584	1,663	1,328	2,177	2,228	1,797	1,504	1,981	1,937	1,935	1,905	1,588	1,897	1,818	2,147	2,075	2,100
Feed and residual	4,382	4,609	4,798	5,252	4,680	5,460	4,693	5,277	5,482	5,471	5,664	5,848	5,864	5,563	5,798	6,158	6,141	5,775	5,700
TOTAL	8,120	7,761	7,915	8,471	7,621	9,352	8,548	8,789	8,791	9,298	9,515	9,741	9,815	9,491	10,232	10,662	11,270	11,375	12,700
Carryout	1,344	1,521	1,100	2,113	850	1,558	426	883	1,308	1,787	1,718	1,899	1,596	1,087	958	2,114	1,967	1,137	1,262
U.S. average price	\$2.36	\$2.28	\$2.37	\$2.07	\$2.50	\$2.26	\$3.24	\$2.71	\$2.45	\$1.94	\$1.82	\$1.85	\$1.97	\$2.32	\$2.42	\$2.06	\$2.00	\$3.05	\$3.30

^a Projected^b Includes imports

Table 3. United States Corn Planting Intentions, Actual Plantings, and Acres Harvested

Year	Planted Acreage				Harvested Acreage
	February/January Intentions	March Intentions	June Intentions	Actual	
			thousand acres		
1976	80,822	82,727	84,092	84,588	71,506
1977	84,526	83,923	82,735	84,328	71,614
1978	80,944	80,237	78,717	81,675	71,930
1979	80,676	79,209	79,751	81,394	72,400
1980	83,131	82,022	83,478	84,043	72,961
1981	...	83,977	84,677	84,097	74,524
1982	...	84,735	82,129	81,857	72,719
1983	69,569 ^a	58,812	60,129	60,217	51,479
1984	...	81,766	79,940	80,617	71,897
1985	...	82,021	83,217	83,398	75,209
1986	...	78,066	76,646	76,580	68,907
1987	...	67,556	66,024	66,200	59,505
1988	...	66,926	67,519	67,717	58,250
1989	...	73,253	72,790	72,322	64,783
1990	...	74,804	74,574	74,166	66,952
1991	77,500	76,124	75,909	75,957	68,822
1992		79,007	79,335	79,311	72,077
1993		76,486	74,259	73,239	62,933
1994		78,625	78,767	78,921	72,514
1995		75,323	72,800	71,479	65,210
1996		79,920	80,355	79,229	72,644
1997		81,416	80,227	79,537	72,671
1998		80,781	80,798	80,165	72,589
1999		78,219	77,611	77,386	70,487
2000		77,881	79,579	79,551	72,440
2001		76,693	76,109	75,702	68,768
2002		79,047	78,847	78,894	69,330
2003		79,022	79,066	78,603	70,944
2004		79,004	80,968	80,929	73,631
2005		81,413	81,592	81,779	75,117
2006		78,019	79,366	78,327	70,648
2007		90,454	92,888		-85,418

^a February

Table 4. United States Corn Yield Estimates

Table 4. United States Corn Yield Estimates																																	
	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	
	bushels per acre																																
July 1	93.0	90.5	89.4	90.1	95.8	99.3	95.9	87.0	78.5	112.8	117.7	107.8	121.3	116.0	128.4	125.6	118.7	125.3	130.0	134.7	141.9	133.9	125.2	139.9	148.9	139.2	152.2
August 1	87.4	86.7	87.3	96.1	102.1	93.0	104.3	113.9	99.9	107.9	110.6	120.4	121.4	78.5	112.4	121.7	106.1	121.4	113.1	129.0	121.1	120.2	125.2	132.0	132.2	141.8	133.5	125.4	138.5	149.4	143.2	154.7	
September 1	85.1	82.8	89.7	100.3	104.6	91.8	107.1	113.9	85.1	106.3	113.3	119.7	119.9	78.5	112.4	121.7	106.1	121.4	113.1	129.0	121.1	120.2	125.8	132.0	133.5	139.6	136.3	127.2	142.2	158.4	146.1	153.5	
October 1	86.2	82.7	90.8	100.7	106.4	90.8	109.0	114.2	82.9	105.5	115.1	119.2	119.9	80.2	114.4	120.3	108.8	123.8	110.3	133.8	116.6	123.0	125.8	132.0	133.5	137.7	138.0	127.6	143.2	160.2	148.4	151.2	
November 1	87.2	85.5	91.5	101.2	109.2	90.8	109.2	114.2	80.5	105.9	116.6	119.3	120.3	82.3	116.6	119.0	108.6	129.3	103.1	138.4	113.7	126.5	126.4	133.3	134.5	137.1	138.2	130.0	142.2	160.4	147.9	149.1	
January 1	86.2	87.4	90.8	101.2	109.4	91.0	109.9	114.8	81.6	106.6	118.0	119.3	119.4	84.6	116.2	118.5	108.6	131.4	100.7	138.6	113.5	127.1	127.0	134.4	133.8	137.1	138.2	130.0	142.2	160.4	147.9	149.1	
FINAL	86.4	88.0	90.8	101.0	109.5	91.0	108.9	113.2	81.1	106.7	118.0	119.3	119.8	84.6	116.3	118.5	108.6	131.5	100.7	138.6	113.5	127.1	126.7	134.4	133.8	136.9	138.2	129.3	142.2	160.7	148.0		

Table 5. United States Corn Production Estimates

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
	million bushels																							
July	...	...	...	...	...	5,200																		
August	5,237	7,668	8,266	8,316	7,231	4,479	7,348	7,850	7,418	8,762	7,423	9,214	8,122	8,695	9,276	9,592	9,561	10,369	9,266	8,886	10,064	10,923	10,350	10,976
September	4,390	7,552	8,469	8,268	7,141	4,462	7,321	8,118	7,295	8,770	7,229	9,257	7,832	8,804	9,268	9,738	9,381	10,362	9,238	8,849	9,944	10,961	10,639	11,114
October	4,259	7,498	8,603	8,220	7,139	4,553	7,449	8,022	7,479	8,938	6,962	9,602	7,541	9,012	9,312	9,743	9,467	10,192	9,430	8,970	10,207	11,613	10,857	10,905
November	4,121	7,527	8,717	8,223	7,166	4,671	7,590	7,935	7,479	9,329	6,503	10,010	7,374	9,265	9,359	9,836	9,537	10,054	9,546	9,003	10,278	11,741	11,032	10,745
January	4,204	7,656	8,865	8,253	7,064	4,921	7,527	7,933	7,474	9,479	6,344	10,103	7,374	9,293	9,366	9,761	9,437	9,968	9,507	9,008	10,114	11,807	11,112	10,535
FINAL	4,174	7,672	8,875	8,226	7,131	4,929	7,532	7,934	7,475	9,477	6,338	10,051	7,400	9,233	9,207	9,759	9,431	9,915	9,503	8,967	10,089	11,807	11,114	

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Grain Price OUTLOOK

SOYBEANS: WHAT WILL SOUTH AMERICA DO?

July 2007

Darrel Good

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Summary

U.S. soybean stocks on June 1, 2007 were record large at 1.09 billion bushels, about 100 million more than the inventory of a year earlier. Year ending stocks are expected to total about 600 million bushels, 150 million larger than the inventory on hand at the beginning of the 2006-07 marketing year.

Producers reported planting only 64.1 million acres of soybeans in 2007, 11.4 million less than the record acreage of 2006. The 2007 harvest is now expected to be the second smallest in 8 years, at 2.66 billion bushels. That is nearly 530 million less than the record crop of 2006. Smaller production will result in a significant reduction in year ending stocks by September 1, 2008.

The average farm price of soybeans during the 2006-07 marketing year will likely be near \$6.35, the second highest in eight years. Prices moved sharply higher during the year, however, as the market anticipated, and producers confirmed, a large drop in acreage. Prices were also supported by periods of concern about the condition of the 2007 crop, by the need to encourage expanded acreage of soybeans in South America, and by

expanding biofuels production in Europe and the U.S. The average price, as well as the seasonal pattern of prices, during the 2007-08 marketing year will be heavily influenced by the magnitude of plantings in South America and the prospective size of the 2008 harvest there. With sharply declining stocks, expect prices to be extremely volatile, with a strengthening of the basis as the year progresses. The early expectation is for a 2007-08 average farm price near \$7.50.

Year to End With Large Stocks

The USDA's estimate of June 1 soybean inventories, at 1.091 billion bushels, implied that 698 million bushels of U.S. soybeans were used during the third quarter of the 2006-07 marketing year (Table 1). The Census Bureau estimated that 452.5 million bushels were crushed domestically during the quarter. The total crush for the first three quarters of the year was 1.361 billion bushels, 3.8 percent larger than the crush during the same three quarters last year. For the year, the USDA forecasts the domestic crush at 1.78 billion bushels, 2.4 percent larger than the crush during the previous year. The implication of the USDA forecast is that crush during the last quarter of the year will total 419 million

bushels, 9 million less than the crush of a year earlier. Last year, an unusually large percentage of the annual crush occurred during the fourth quarter. The USDA's projection for the current year reflects a more normal percentage, but a slow down from the pace of crush during the first three quarters. The Census crush estimate for June will be released on July 26. With expanding poultry and livestock production and brisk exports supporting soybean meal consumption, a slow down in the crush is not expected to be shown in that report. We project the annual crush at 1.79 billion bushels (Table 2). The larger crush appears justified based on the continued increase in poultry and livestock numbers. We expect both meal and oil consumption to be slightly larger than the USDA projections (Tables 3 and 4).

Exports during the third quarter of the year totaled 220.8 million bushels, 15 million more than during the same quarter last year and equal to the recent high for the quarter established in 2001. Exports during the first three quarters of the year totaled 971.5 million bushels, 20 percent larger than the total during the same period last year. Through May, the Census Bureau estimate of exports trailed the USDA estimates by 6 to 7 million bushels. USDA export estimates for June and the first three weeks of July totaled 64 million bushels, about the same as during the same period last year. For the year, the USDA expects exports to reach 1.09 billion bushels, 15 percent more than exported last year. To reach that level, exports during the last 6 weeks of the marketing year need to average about 9.3 million bushels per weeks, assuming that Census Bureau estimates still lag the USDA estimates by a few million bushels. The average weekly rate for the four

weeks ended July 19 was 6.94 million bushels. It appears that exports will be near the 1.09 billion bushels projected by the USDA, but could differ by as much as 10 million bushels.

Seed, feed and residual use of soybeans during the first three quarters of the year totaled 219.8 million bushels. For the year, the USDA projects use in the category at 171 million bushels, implying fourth quarter use of -48.8 million bushels. The average fourth quarter use over the past 5 years was -49.2 million bushels. The USDA forecast for the year appears reasonable. It now appears that total use of soybeans during the 2006-07 marketing year will reach 3.051 billion bushels, leaving year ending stocks at 591 million bushels. The USDA's report of July 12, forecast year ending stocks at 600 million bushels.

Acreage Down Sharply

In the June *Acreage* report, the USDA estimated that U.S. producers planted 64.081 million acres of soybeans in 2007 (Table 5). That estimate is 3.059 million less than indicated in the March *Prospective Plantings* report and 11.441 million less than the record plantings of 2006. Acreage is at the lowest level in 12 years. Planted acreage reportedly declined by 6.3 million acres in the western and northern corn belt and 3.95 million in the eastern corn belt (Table 6). Acreage was increased modestly in southeastern states. Based on conditions at the time of the June survey, the USDA projects harvested acreage of soybeans in 2007 at 63.285 million acres, only 796,000 (1.2 percent) less than planted acreage. The projected harvested-to-planted ratio of .9876 is very near the previous five-year average of .9856. The

projection of harvested acreage is 11.317 million below the record acreage of 2006.

Based on regional trend yields from 1989 through 2006, the USDA's World Agricultural Outlook Board (WAOB), calculated the 2007 trend yield at 41.5 bushels per acre, 1.2 bushels below the 2006 average and 1.5 bushels below the record large yield of 2005. The USDA's National Agricultural Statistics Service will release the first forecast of yield and production on August 10. For now, the market generally uses a combination of trend yield and crop condition ratings to anticipate the average yield.

There has been a good correlation between the U.S. average trend-adjusted yield and the percent of the crop rated in good or excellent condition at the end of the growing season. The USDA's rating of crop conditions for the largest producing states has been available since 1986. For the 21 years from 1986 through 2006, the percent of the crop rated good or excellent at the end of the season explained about 83 percent of the annual variation in the average trend-adjusted yield. That relationship is expressed as:

yield = 30.27 + .1954 times % rated good or excellent.

As the growing season progresses, this relationship can be used as a guide to form yield expectations. Since there is not a perfect correlation between crop ratings and yield and since crop ratings will likely change by the end of the season, a forecast based on this relationship should be used cautiously, particularly early in the growing season. As of July 22, for example, 61 percent of

the crop was rated in good or excellent condition. If that rating holds through the end of the season, an average yield of about 42.2 bushels might be expected. With soybean yields so dependent on August weather, a yield forecast is made with a relatively low level of confidence. A forecast of 42 bushels is used here. Reports of soybean rust in Texas and Arkansas pose some threat for yields, but should be easily controlled and is not expected to impact the midwest crop.

A yield of 42 bushels and harvested area of 63.285 million acres points to a 2007 crop of about 2.66 billion bushels, nearly 530 million bushels less than the record crop of 2006, but about 35 million larger than the WAOB July projection.

Stocks to Decline

The demand for U.S. soybeans and soybean products during the 2007-08 marketing year will depend on a large number of factors. These factors will also influence the magnitude of soybean acreage required in the U.S. in 2008. One of these factors is the rate of increase in soybean meal consumption in China and the resulting demand for soybean imports. The USDA estimates that China consumed 30.6 million tons of soybean meal in 2005-06 and projects use during the current year at 31.9 million tons. China imported 1.04 billion bushels of soybeans in 2005-06 and is expected to import 1.1 billion bushels this year. For 2007-08, the USDA projects Chinese soybean meal consumption at 34.6 million tons and Chinese soybean imports at 1.27 billion bushels. Recent widespread disease-related death losses in the Chinese hog industry and cancellation of some soybean import contracts, however, raise some red flags about the potential

growth in soybean meal consumption during the year ahead.

A second factor influencing demand for U.S. soybeans is the likely size of the 2008 soybean crop in South America. The recent sharp increase in soybean prices was viewed as supportive of a significant increase in acreage. Now that prices are moderating and the Brazilian currency remains strong, there is more uncertainty about the acreage response. In its July 12 forecasts, the USDA projected an increase of 3.9 percent in soybean acreage in Brazil, a 5.7 percent increase in Argentina, and 3.6 percent increase in the rest of South America. Acreage for all of South America in 2008 was projected at 104 million acres, about 4.5 million more than harvested in 2007. The 2008 South American crop was projected at 4.3 billion bushels, only 75 million bushels larger than the 2007 harvest. Unless acreage in South America exceeds current projections, there may be a need to expand U.S. acreage in 2008.

A third factor influencing soybean demand will be the rate of growth in biodiesel production, not only in the U.S. where soybean oil is the major vegetable oil used, but in the rest of the world. Europe is moving more rapidly to biodiesel production than the U.S., using primarily canola oil, increasing the demand for other vegetable oils for human consumption. The domestic soybean crush in 2007-08 will still be driven by soybean meal demand, but the rate of biodiesel use of soybean oil will influence soybean oil and soybean prices. The USDA estimates that 1.555 billion pounds of soybean oil were used domestically to produce methyl ester for biodiesel production in 2005-06. Use is projected

at 2.4 billion pounds for the current year and 3.5 billion pounds in 2007-08. The Census Bureau releases monthly estimates of the amount of soybean oil and all fats and oils used for methyl ester production. The latest estimates are available for May 2007, indicating that 244.1 million pounds of soybean oil and 273.7 million pounds of all fats and oils were used during that month. Methyl esters accounted for 14.3 percent of total domestic soybean oil consumption and 10 percent of domestic consumption of all fats and oils.

A fourth factor influencing soybean demand during the year ahead is the domestic feed demand for soybean meal. Livestock and poultry numbers, livestock profitability, the availability and use of ethanol co-products, and the relative price of soybean meal to other feed ingredients will all be important for soybean meal demand.

In the projections released on July 12, the USDA projected the domestic crush during the 2007-08 marketing year at 1.8 billion bushels, 20 million more than the projection for this year (10 million more than our projection). Marketing year exports were forecast at 1.02 billion bushels, 70 million less than expected this year. In light of expanding poultry and livestock production domestically and expectations of a modest increase in South American production, these forecasts appear conservative, but reflected the expectation of a small 2007 harvest, sharply declining stocks, and high prices. If the 2007 crop is a little larger, as we project, use may also be larger, but stocks will decline significantly. We project use at 3.035 billion bushels and year ending stocks at 230 million bushels.

Price Prospects

Soybean prices have been on a roller-coaster in recent weeks. Futures traded limit-up following the June 29 *Acreage* report, but dropped dramatically with a reversal of weather prospects in mid-July. The average spot cash price of soybeans in central Illinois reached a marketing year high of \$8.545 on July 13, but stood at 7.455 on July 23, reflecting a basis of $-\$0.71$ under August futures. The ample supply of old crop soybeans along with the speculative premium in soybean futures combined to yield a near record weak basis. November 2007 soybean futures traded to a contract high of \$9.495 on July 13 but settled at \$8.41 on July 23. The average cash bid for harvest delivery on July 23 was \$7.72, reflecting a near record weak basis of $-\$0.69$.

Soybean prices are expected to remain extremely volatile as the market works through the uncertainties of U.S. crop size, Chinese demand, South American acreage, and the unknown demand for U.S. soybean acreage in 2008. Basis levels, however, should firm significantly as the 2007-08 marketing year progresses due to the tightening of domestic inventories. The current price structure is rewarding storage of the 2007 crop. The stored crop will have to be forward priced, however, to offer a reasonable chance to capture that return to storage. Unless buyers are bidding a strong basis for deferred delivery, the stored crop will have to be hedged in order to capture the potential basis gain.

The projected 2007-08 marketing year ending stocks-to-use ratio of 7.6 percent suggests a 2007-08 average farm price near \$7.50. Futures settlement prices on July 23 pointed to an average farm price near \$8.40. Prices may have to be higher than projected by the stocks-to-use ratio to encourage more soybean acreage in the U.S. in 2008. At least a period of high prices might be required, depending on the level of corn prices. Even though prices have declined sharply, values are still quite high. A strategy that involves storing as much of the crop as possible is encouraged by the current price structure particularly if on-farm storage is available. Hedging, or using hedged-to-arrive contracts, on a significant portion of that stored crop to capture basis gain appears warranted. Declining crop condition ratings and/or late season weather rallies may offer an opportunity to place the storage hedges prior to harvest. Storing some of the crop unpriced may pay off if the market has to buy more U.S. acres in 2008 or if South American or U.S. crops experience some weather problems.

Issued by Darrel Good
Extension Economist
University of Illinois

Table 1. Soybean Quarterly Balance Sheet

	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
	million bushels																					
September 1 stocks	316.1	536.4	436.4	302.5	182.0	239.1	329.0	278.4	292.3	209.1	334.8	183.5	131.8	199.8	348.5	290.2	247.7	208.0	178.3	112.4	255.7	449.3
Production	2,099.1	1,942.6	1,937.7	1,548.8	1,923.8	1,925.9	1,986.6	2,190.4	1,869.7	2,514.9	2,174.3	2,380.3	2,688.8	2,741.0	2,653.8	2,757.8	2,890.7	2,756.1	2,453.7	3,123.7	3,063.2	3,188.2
TOTAL	2,415.2	2,479.0	2,374.1	1,855.3	2,108.8	2,167.0	2,319.6	2,470.8	2,167.0	2,730.0	2,514.1	2,572.8	2,825.6	2,943.8	3,006.3	3,052.0	3,141.3	2,968.8	2,637.6	3,241.7	3,322.3	3,641.5
September-November																						
Crush	267.5	295.8	293.4	275.4	273.0	304.1	322.0	328.2	329.6	346.2	351.4	360.6	395.8	409.3	426.7	420.9	427.5	417.5	419.4	427.4	442.4	459.2
Export	165.5	216.5	260.8	138.3	168.5	120.1	167.1	235.9	176.0	230.9	233.6	289.7	365.3	288.5	297.8	315.5	348.6	320.4	385.7	405.8	312.6	373.9
Seed, residual	21.5	10.1	64.6	74.8	56.6	58.8	51.5	70.7	79.8	50.9	95.7	97.4	66.9	78.5	98.9	75.6	89.6	112.3	140.5	99.3	63.2	104.6
TOTAL	454.4	522.4	618.8	488.5	498.1	483.0	540.6	634.8	585.4	628.0	681.7	747.7	826.2	758.8	823.4	812.0	865.7	850.2	945.6	932.4	818.2	937.7
December 1 stocks	1,959.8	1,956.6	1,755.3	1,366.8	1,610.7	1,684.0	1,779.0	1,836.0	1,573.6	2,102.0	1,833.4	1,825.1	1,999.4	2,186.4	2,182.7	2,240.0	2,275.6	2,115.4	1,688.7	2,304.6	2,501.4	2,701.4
Crush	281.9	320.1	317.3	286.3	304.3	301.4	323.1	335.2	327.2	371.8	359.0	400.7	443.1	408.6	408.1	417.9	447.6	422.0	423.2	436.2	437.2	449.5
Export	270.9	233.7	258.9	197.0	217.0	179.7	259.6	255.9	212.7	283.5	278.7	333.1	306.4	243.1	315.4	338.4	422.7	425.5	335.1	400.2	311.4	376.8
Seed, residual	35.7	63.8	33.0	-6.7	33.9	12.8	19.6	29.3	12.1	76.5	5.3	35.5	46.9	77.0	63.2	79.8	69.3	66.9	25.9	88.3	84.4	90.1
TOTAL	588.5	617.6	609.2	476.6	555.2	493.9	602.3	620.4	552.0	731.8	643.0	769.3	796.5	728.7	786.7	836.1	939.6	914.4	784.2	924.7	833.0	916.4
March 1 stocks	1,371.3	1,339.0	1,146.1	890.2	1,055.5	1,190.1	1,177.3	1,215.6	1,021.6	1,370.2	1,190.4	1,055.8	1,202.9	1,457.3	1,396.0	1,403.9	1,336.0	1,202.0	905.8	1,381.4	1,669.2	1,786.9
Crush	262.3	297.2	308.3	270.1	290.7	295.5	304.0	325.4	320.4	361.7	334.0	355.7	404.9	396.4	373.9	405.4	429.6	400.2	359.5	430.7	431.3	452.5
Export	226.4	159.3	185.0	135.5	153.2	146.9	148.2	186.7	120.6	216.6	188.5	165.9	120.0	161.9	205.8	220.8	155.0	194.4	117.6	211.2	185.5	220.8
Seed, residual	33.7	45.7	-2.5	20.1	15.7	24.2	29.4	20.1	25.3	0.0	44.9	34.3	84.4	50.4	58.9	69.5	66.5	6.3	19.1	41.1	62.7	25.1
TOTAL	522.4	502.2	490.8	425.7	459.6	466.6	481.6	532.2	466.3	578.3	567.4	555.9	609.2	608.7	621.8	695.7	651.1	600.9	496.2	683.1	679.5	698.4
June 1 stocks	848.9	836.8	655.3	464.5	595.9	723.5	695.7	683.4	555.3	791.9	622.8	499.9	593.7	848.6	774.4	708.2	684.9	602.4	410.6	699.3	990.7	1,091.1
Crush	241.1	265.5	255.5	225.8	278.4	285.9	304.6	290.0	298.4	325.5	324.9	318.7	353.2	375.4	370.1	395.8	395.0	375.6	327.6	401.8	428.0	
Export	76.3	147.4	97.6	56.2	84.2	110.4	109.0	91.0	79.7	107.0	150.5	93.0	78.7	127.5	171.6	121.3	137.2	104.1	48.5	85.5	137.7	
Seed, residual	-4.9	-12.5	0.3	0.5	-5.8	-1.8	3.1	10.1	-31.9	24.6	-35.2	-43.6	-37.9	-1.3	-55.0	-56.6	-55.3	-54.7	-71.0	-41.6	-23.2	
TOTAL	312.5	400.4	352.8	282.5	358.8	394.5	416.7	391.1	346.2	457.1	439.6	368.1	393.9	501.6	486.7	460.5	476.9	425.0	299.1	445.8	542.4	
September 1 stocks	536.4	436.4	302.5	182.0	239.1	329.0	278.4	292.3	209.1	334.8	183.5	131.8	199.8	348.5	290.2	247.7	208.0	178.3	112.4	255.7	449.3	
Annual																						
Crush	1,052.8	1,178.7	1,174.5	1,057.6	1,146.4	1,186.9	1,253.7	1,278.8	1,275.6	1,405.2	1,369.4	1,435.7	1,595.1	1,589.7	1,578.8	1,650.0	1,699.7	1,615.3	1,529.7	1,696.1	1,738.9	
Export	740.1	756.9	801.7	527.0	622.9	557.1	683.9	769.5	589.0	838.0	851.2	881.7	870.4	801.0	973.8	996.0	1,063.5	1,045.0	887.2	1,102.7	947.2	
Seed, residual	85.9	107.0	95.4	88.7	100.4	94.0	103.6	130.2	85.3	152.0	110.4	123.6	160.3	204.6	166.2	168.3	170.1	130.2	108.5	187.2	186.9	
TOTAL	1,878.8	2,042.6	2,071.6	1,673.3	1,869.7	1,838.0	2,041.2	2,178.5	1,949.9	2,397.0	2,330.9	2,441.0	2,625.8	2,595.3	2,718.8	2,803.1	2,933.3	2,790.5	2,525.5	2,986.0	2,873.0	

Table 2. Soybean Meal Balance Sheet -- Years Beginning October 1

	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
Beginning stocks	173	318	285	230	204	150	223	212	210	218	330	293	383	240	220	211	172	314
Production	27,719	28,325	29,831	30,364	30,514	33,270	32,527	34,210	38,176	37,792	37,591	39,385	40,292	38,213	36,325	40,715	41,244	42,405
TOTAL ^a	27,982	28,688	30,183	30,687	30,788	33,483	32,825	34,524	38,443	38,109	37,970	39,729	40,818	38,619	36,830	41,073	41,557	42,884
Domestic	22,291	22,934	23,007	24,251	25,283	26,542	26,611	27,320	28,895	30,657	30,345	31,643	33,070	32,379	31,449	33,561	33,178	34,189
Exports	5,319	5,469	6,946	6,232	5,356	6,717	6,002	6,994	9,330	7,122	7,332	7,703	7,508	6,019	5,170	7,340	8,064	8,375
TOTAL	27,610	28,403	29,953	30,483	30,639	33,260	32,613	34,314	38,225	37,779	37,677	39,346	40,578	38,399	36,619	40,901	41,243	42,564
Ending stocks	318	285	230	204	150	223	212	210	218	330	293	383	240	220	211	172	314	320
Price ^b	\$186.48	\$181.38	\$189.21	\$193.75	\$192.86	\$162.55	\$235.92	\$270.90	\$185.28	\$138.55	\$167.70	\$173.60	\$167.73	\$181.57	\$256.05	\$182.89	\$174.17	\$205.00

^a Includes imports^b Bulk, Decatur, Illinois 48%

Table 3. Soybean Oil Balance Sheet -- Years Beginning October 1

	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
Beginning stocks	1,715	1,305	1,786	2,239	1,555	1,103	1,137	2,015	1,520	1,382	1,520	1,995	2,767	2,358	1,489	1,076	1,699	3,010
Production	13,003	13,406	14,346	13,778	13,951	15,613	15,240	15,752	18,143	18,081	17,825	18,420	18,898	18,438	17,080	19,360	20,387	20,260
TOTAL ^a	14,740	14,728	16,132	16,027	15,574	16,733	16,472	17,821	19,723	19,546	19,427	20,488	21,711	20,843	18,875	20,462	22,122	23,300
Domestic	12,082	12,163	12,246	13,053	12,941	12,916	13,465	14,263	15,262	15,655	16,056	16,320	16,833	17,089	16,864	17,439	17,959	18,825
Exports	1,353	779	1,847	1,419	1,529	2,680	992	2,037	3,079	2,372	1,376	1,401	2,519	2,263	936	1,324	1,153	1,475
TOTAL	13,435	12,942	13,893	14,472	14,471	15,596	14,457	16,300	18,341	18,027	17,432	17,721	19,353	19,352	17,800	18,763	19,112	20,300
Ending stocks	1,305	1,786	2,239	1,555	1,103	1,137	2,015	1,520	1,382	1,520	1,995	2,767	2,358	1,491	1,076	1,699	3,010	3,000
Average Price ^b	22.3¢	21.0¢	19.1¢	21.4¢	27.1¢	27.6¢	24.75¢	22.5¢	25.8¢	19.9¢	15.6¢	14.2¢	16.5¢	22.0¢	30.0¢	23.0¢	23.4¢	31.0¢

^a Includes imports^b Bulk, Decatur, Illinois

Table 4. Soybean Balance Sheet -- Years Beginning September 1

	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08 ^a
Caryin	182	239	329	278	292	209	335	183	132	200	348	290	248	208	178	112	256	449	591
Production	1,924	1,926	1,987	2,190	1,870	2,515	2,174	2,380	2,689	2,741	2,654	2,758	2,891	2,756	2,454	3,124	3,063	3,188	2,660
TOTAL ^b	2,109	2,167	2,320	2,470	2,168	2,729	2,514	2,573	2,826	2,944	3,006	3,052	3,141	2,969	2,638	3,242	3,322	3,642	3,255
Crush	1,146	1,187	1,254	1,279	1,276	1,405	1,369	1,436	1,597	1,590	1,578	1,640	1,700	1,615	1,530	1,696	1,739	1,790	1,810
Export	623	557	684	770	589	838	851	882	870	805	975	996	1,064	1,045	887	1,097	947	1,090	1,050
Seed, feed,	101	94	103	129	94	151	111	123	159	201	163	169	169	131	109	192	187	171	175
TOTAL	1,870	1,838	2,041	2,178	1,954	2,394	2,331	2,441	2,626	2,596	2,716	2,804	2,933	2,791	2,526	2,986	2,873	3,051	3,035
Carryout	239	329	278	292	209	335	183	132	200	348	290	248	208	178	112	256	449	591	220
U.S. Average	\$5.70	\$5.75	\$5.58	\$5.60	\$6.40	\$5.48	\$6.77	\$7.35	\$6.47	\$4.93	\$4.63	\$4.54	\$4.38	\$5.53	\$7.34	\$5.74	\$5.66	\$6.35	\$7.50

^a Projected^b Includes imports

Table 5. Soybean Planting Intentions, Actual Plantings, and Acres Harvested

Year	January Intentions	Mar./April Intentions	June/July Intentions	Actual	Harvested Acreage
			million acres		
1975	57.5	56.6	54.6	54.6	53.8
1976	50.9	49.3	49.0	50.3	49.4
1977	53.1	55.7	59.0	59.0	57.6
1978	63.9	63.7	64.0	64.7	63.3
1979	66.3	68.8	71.6	71.4	70.3
1980	71.6	71.3	70.3	69.9	67.8
1981	----	69.8	68.5	67.5	66.2
1982	69.5 ^a	---	72.2	70.9	69.4
1983	68.8 ^a	65.8 ^b	63.3	63.8	62.5
1984	65.2 ^a	---	68.0	67.8	66.1
1985	64.4 ^a	---	63.3	63.1	61.6
1986	---	62.0	61.8	60.4	58.3
1987	---	56.9	58.7	58.180	57.172
1988	---	58.0	58.5	58.840	57.373
1989	---	61.7	61.3	60.820	59.282
1990		59.42	58.05	57.795	56.283
1991	58.5	57.12	59.78	59.180	58.169
1992		57.42	59.03	59.180	58.233
1993		59.30	61.58	60.085	57.307
1994		61.12	61.78	61.620	60.809
1995		61.45	63.105	62.495	61.544
1996		62.478	63.895	64.195	63.349
1997		68.800	70.850	70.005	69.110
1998		72.000	72.720	72.025	70.441
1999		73.105	74.205	73.730	72.446
2000		74.871	74.501	74.266	72.408
2001		76.657	75.416	74.075	72.975
2002		72.966	72.993	73.963	72.497
2003		73.182	73.653	73.404	72.476
2004		75.411	74.809	75.208	73.958
2005		73.910	73.103	72.032	71.251
2006		76.895	74.930	75.522	74.602
2007		67.140	64.081		(63.285)

^a February 1^b May 1

Table 6. Planted Acres of Soybeans by Region

Region	Western Corn Belt ^a		Eastern Corn Belt ^b		Mid-South ^c		Southeast ^d		East Coast ^e		United States	
	000 acres	%	000 acres	%	000 acres	%	000 acres	%	000 acres	%	000 acres	%
1976	16,145	32.1	14,530	28.9	13,630	27.1	4,799	9.6	1,122	2.3	50,226	100.0
1979	23,370	32.7	19,620	27.5	18,470	25.9	8,360	11.7	1,591	2.2	71,411	100.0
1986	24,875	41.2	18,300	30.3	10,995	18.2	4,680	7.8	1,535	2.5	60,385	100.0
1987	24,120	41.5	18,580	31.9	10,330	17.8	3,675	6.3	1,475	2.5	58,180	100.0
1988	24,310	41.3	18,680	31.7	10,460	17.8	3,810	6.5	1,580	2.7	58,840	100.0
1989	24,790	40.8	19,020	31.3	10,750	17.7	4,460	7.3	1,800	2.9	60,820	100.0
1990	23,750	41.1	18,490	32.0	10,270	17.2	3,650	6.3	1,635	2.8	57,795	100.0
1991	26,035	44.0	19,420	32.8	8,990	15.2	3,005	5.1	1,730	2.9	59,180	100.0
1992	25,400	42.9	20,000	33.8	8,980	15.2	2,915	5.2	1,715	2.9	59,180	100.0
1993	25,300	42.1	20,410	34.0	9,690	16.1	2,915	4.9	1,770	2.9	60,085	100.0
1994	27,220	44.1	20,510	33.3	9,220	15.0	2,875	4.7	1,795	2.9	61,620	100.0
1995	28,210	45.1	21,130	33.8	9,130	14.7	2,290	3.6	1,735	2.8	62,495	100.0
1996	28,250	44.0	22,370	34.8	9,390	14.6	2,565	4.0	1,620	2.5	64,195	100.0
1997	32,450	46.4	22,610	32.3	10,390	14.8	2,777	4.0	1,778	2.5	70,005	100.0
1998	33,700	46.8	23,650	32.8	10,180	14.1	2,690	3.8	1,805	2.5	72,025	100.0
1999	35,800	48.5	24,100	32.7	9,700	13.2	2,360	3.2	1,770	2.4	73,730	100.0
2000	37,050	49.9	24,050	32.4	9,010	12.1	2,230	3.0	1,926	2.6	74,266	100.0
2001	37,700	50.9	24,650	33.3	7,685	10.4	2,135	2.9	1,905	2.5	74,075	100.0
2002	37,070	50.1	24,740	33.5	8,170	11.0	2,145	2.9	1,838	2.5	73,963	100.0
2003	37,650	51.3	23,770	32.4	7,990	11.3	2,253	3.0	1,741	2.4	73,404	100.0
2004	38,000	50.5	23,550	31.4	9,100	12.1	2,579	3.4	1,979	2.6	75,208	100.0
2005	36,350	50.5	23,010	31.9	8,485	11.8	2,259	3.1	1,928	2.7	72,032	100.0
2006	38,700	51.2	24,100	31.9	8,725	11.6	2,092	2.8	1,905	2.5	75,522	100.0
2007	32,400	50.6	20,150	31.4	7,460	11.6	2,233	3.5	1,838	2.9	64,081	100.0

^a Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota^b Illinois, Indiana, Michigan, Ohio, Wisconsin^c Arkansas, Kentucky, Louisiana, Mississippi, Oklahoma, Tennessee, Texas^d Alabama, Florida, Georgia, North Carolina, South Carolina^e Delaware, Maryland, New Jersey, New York, Pennsylvania, Virginia, West Virginia

Table 7. United States Soybean Yield Estimates

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
	million bushels																											
August 1	30.3	27.4	30.2	32.3	29.7	30.5	31.5	32.9	34.7	26.0	32.3	32.5	31.8	35.8	33.8	37.6	36.4	36.3	39.5	39.5	39.2	40.7	38.7	36.5	39.4	39.1	38.7	39.6
September 1	30.9	27.0	31.2	32.6	24.9	30.3	33.2	33.1	34.0	25.9	32.0	32.4	31.0	35.9	34.0	38.2	37.0	35.8	39.3	40.6	37.9	39.5	38.2	37.0	36.4	38.5	39.6	41.8
October 1	31.5	26.0	31.5	32.4	24.7	29.5	33.9	33.3	34.2	26.4	32.6	32.3	33.0	36.3	33.7	40.5	35.5	37.0	39.0	38.7	37.0	38.7	39.2	37.0	34.0	42.0	41.6	42.8
November 1	31.8	26.5	31.0	32.4	25.0	28.5	34.2	33.8	34.1	26.6	32.8	33.7	33.5	37.3	32.7	41.5	35.4	37.9	39.2	38.6	36.7	38.0	39.4	37.5	33.8	42.6	42.7	43.0
January 1	32.2	26.8	30.4	32.2	25.7	28.2	34.1	33.8	33.7	26.8	32.4	34.0	34.3	37.6	32.0	41.9	34.9	37.6	39.0	38.9	36.5	38.1	39.6	37.8	33.4	42.5	43.3	42.7
FINAL	32.1	26.5	30.1	31.5	26.2	28.1	34.1	33.3	33.9	27.0	32.3	34.1	34.2	37.6	32.6	41.4	35.3	37.6	38.9	38.9	36.6	38.1	39.6	38.0	33.9	42.2	42.2	43.0

Table 8. United States Soybean Production Estimates

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
	million bushels																											
August 1	2,130	1,880	2,017	2,293	1,843	2,035	1,959	1,979	2,000	1,474	1,905	1,836	1,869	2,079	1,902	2,282	2,246	2,300	2,744	2,825	2,870	2,989	2,867	2,628	2,862	2,877	2,791	2,928
September 1	2,174	1,831	2,089	2,314	1,535	2,028	2,063	1,980	1,957	1,472	1,889	1,835	1,817	2,085	1,909	2,316	2,285	2,270	2,746	2,909	2,778	2,900	2,834	2,656	2,643	2,836	2,856	3,093
October 1	2,213	1,757	2,107	2,300	1,517	1,972	2,108	1,992	1,968	1,501	1,926	1,823	1,934	2,108	1,891	2,458	2,190	2,346	2,722	2,769	2,696	2,823	2,907	2,654	2,468	3,107	2,967	3,189
November 1	2,236	1,775	2,077	2,300	1,535	1,902	2,129	2,009	1,960	1,512	1,937	1,904	1,962	2,167	1,834	2,523	2,183	2,403	2,736	2,763	2,673	2,777	2,923	2,690	2,452	3,150	3,043	3,204
January 1	2,268	1,817	2,030	2,277	1,595	1,861	2,099	2,007	1,905	1,539	1,927	1,922	1,986	2,197	1,809	2,558	2,152	2,382	2,727	2,757	2,643	2,770	2,891	2,730	2,418	3,141	3,086	3,188
FINAL	2,261	1,798	1,989	2,190	1,636	1,861	2,099	1,943	1,938	1,549	1,924	1,926	1,987	2,190	1,870	2,515	2,174	2,380	2,689	2,741	2,654	2,758	2,891	2,756	2,454	3,124	3,063	

Table 9. South American Soybean Area, Yield and, Production, 1988 to Date

Year	Brazil			Argentina			Paraguay		
	Area	Yield	Production	Area	Yield	Production	Area	Yield	Production
	mil. ha.	t/ha.	mil.t	mil. ha.	t/ha.	mil. t.	mil. ha.	t/ha.	mil. t.
1988-89	12.15	1.94	23.60	4.00	1.63	6.50	0.85	1.90	1.62
1989-90	11.55	1.76	20.34	4.95	2.17	10.75	0.98	1.61	1.58
1990-91	9.75	1.62	15.75	4.75	2.42	11.50	0.89	1.46	1.30
1991-92	9.70	1.99	19.30	4.80	2.32	11.15	0.90	1.44	1.30
1992-93	10.63	2.12	22.50	4.90	2.32	11.35	0.98	1.79	1.75
1993-94	11.44	2.16	24.70	5.40	2.30	12.40	1.05	1.71	1.80
1994-95	11.68	2.22	25.90	5.70	2.19	12.50	1.10	2.00	2.20
1995-96	10.95	2.21	24.15	5.98	2.08	12.43	1.10	2.18	2.40
1996-97	11.80	2.27	26.80	6.26	1.81	11.20	1.20	2.31	2.77
1997-98	13.00	2.50	32.50	6.95	2.80	19.50	1.20	2.49	2.99
1998-99	12.90	2.43	31.30	8.17	2.45	20.00	1.20	2.54	3.05
1999-00	13.60	2.51	34.20	8.58	2.47	21.20	1.15	2.52	2.90
2000-01	13.93	2.80	39.00	10.40	2.67	27.80	1.35	2.61	3.52
2001-02	16.35	2.66	43.50	11.40	2.63	30.00	1.45	2.45	3.55
2002-03	18.45	2.82	52.00	12.60	2.82	35.50	1.55	2.90	4.50
2003-04	21.52	2.37	51.00	14.00	2.36	33.00	1.75	2.23	3.91
2004-05	22.92	2.31	53.00	14.40	2.71	39.00	2.00	2.03	4.05
2005-06	22.23	2.56	57.00	15.20	2.66	40.50	2.00	1.82	3.64
2006-07	20.70	2.85	59.00	15.90	2.92	46.50	2.42	2.69	6.50
2007-08	21.5	2.84	61.00	16.80	2.80	47.00	2.40	2.58	6.20

Source: USDA, FAS

Table 10. Soybean Production by Country

Year	United States	Brazil ^a	Argentina ^a	Paraguay ^a	China	Other	World	All Foreign
million bushels								
1970	1,127	76	2	3	254	165	1,627	500
1971	1,176	135	3	4	290	126	1,734	558
1972	1,283	184	10	4	320	66	1,867	584
1973	1,547	289	18	7	367	64	2,292	745
1974	1,215	363	18	8	349	54	2,007	792
1975	1,547	413	26	10	367	46	2,409	862
1976	1,288	460	51	14	242	128	2,183	895
1977	1,762	350	99	12	266	154	2,643	881
1978	1,870	557	136	20	278	167	2,847	977
1979	2,261	376	132	21	274	191	3,255	994
1980	1,798	558	129	22	292	176	2,975	1,177
1981	1,989	471	152	22	342	186	3,162	1,173
1982	2,190	542	154	19	332	200	3,437	1,247
1983	1,636	571	257	20	359	213	3,056	1,420
1984	1,861	672	248	35	356	248	3,421	1,561
1985	2,099	518	268	22	386	272	3,565	1,466
1986	1,943	636	257	35	427	303	3,601	1,658
1987	1,938	662	356	40	457	359	3,812	1,874
1988	1,549	852	235	60	428	387	3,506	1,957
1989	1,924	747	395	58	376	445	3,945	2,020
1990	1,926	579	423	48	404	446	3,826	1,900
1991	1,987	709	410	48	357	435	3,946	1,959
1992	2,188	827	417	64	378	434	4,308	2,120
1993	1,871	908	456	66	563	454	4,318	2,447
1994	2,517	952	459	81	588	460	5,057	2,540
1995	2,177	887	457	88	496	487	4,591	2,415
1996	2,380	1,003	412	102	486	474	4,857	2,477
1997	2,689	1,194	717	110	551	545	5,806	3,117
1998	2,741	1,150	735	112	557	577	5,872	3,131
1999	2,654	1,257	779	107	525	527	5,875	3,221
2000	2,758	1,433	1,021	129	566	525	6,432	3,674
2001	2,891	1,598	1,102	130	566	506	6,793	3,902
2002	2,756	1,911	1,304	165	607	500	7,243	4,487
2003	2,454	1,874	1,212	144	565	613	6,862	4,408
2004	3,124	1,947	1,433	149	639	635	7,927	4,803
2005	3,063	2,094	1,488	134	724	8,104	5,041	5,018
2006	3,188	2,168	1,709	239	595	751	8,650	5,462
2007	2,745	2,241	1,727	228	573	765	8,279	5,534

^a Harvested in the spring of the following year.

Table 11. World Oilseed and Soybean Production

Year	Major Oilseeds			Soybeans		
	United States	Ex-United States	Total	United States	Ex-United States	Total
	million metric tons					
1977-78	56.5	93.7	150.2	47.95	23.98	71.93
1978-79	58.6	92.0	150.6	50.86	26.62	77.48
1979-80	72.4	98.1	170.5	61.72	31.79	93.51
1980-81	55.8	99.8	155.6	48.77	32.20	80.97
1981-82	64.0	105.5	169.5	54.13	31.93	86.06
1982-83	68.2	110.1	178.3	59.61	33.96	93.57
1983-84	50.4	115.1	165.5	44.52	38.64	84.16
1984-85	59.2	131.7	191.1	50.64	42.50	93.14
1985-86	65.4	130.8	196.2	57.13	39.92	97.05
1986-87	59.4	135.0	194.4	52.87	45.21	98.08
1987-88	60.6	150.0	210.6	52.75	51.06	103.81
1988-89	50.3	153.9	204.2	42.15	53.49	95.64
1989-90	59.3	153.1	212.4	52.35	55.02	107.37
1990-91	60.6	155.1	215.7	52.42	51.57	103.99
1991-92	64.3	160.0	224.3	54.07	53.31	107.38
1992-93	68.4	158.9	227.4	59.61	57.69	117.30
1993-94	59.5	168.4	227.9	50.92	66.58	117.50
1994-95	79.7	181.2	260.9	68.49	69.14	137.63
1995-96	69.1	190.6	259.7	59.24	65.72	124.96
1996-97	74.8	187.0	261.8	64.78	67.40	132.18
1997-98	83.1	203.9	287.0	73.18	84.90	158.07
1998-99	84.4	210.3	294.7	74.60	85.21	159.81
1999-00	82.3	221.1	303.4	72.22	87.68	159.90
2000-01	84.9	228.5	313.4	75.06	100.00	175.06
2001-02	89.8	235.3	325.1	78.67	106.20	184.87
2002-03	83.9	245.7	329.6	75.01	122.11	197.12
2003-04	76.6	258.3	334.9	66.78	119.97	186.75
2004-05	95.9	285.3	381.2	85.01	130.73	215.74
2005-06	95.5	294.9	390.4	83.37	137.18	220.55
2006-07	96.6	307.7	404.3	86.77	148.64	235.41
2007-08	84.1	314.9	399	74.71	150.62	225.33

¹WASDE July 2007 and earlier.

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CORN: A LITTLE BREATHING ROOM

OCTOBER 2007

Darrel Good

2007 – No. 7

Summary

The USDA's October *Crop Production* report confirmed expectations for a 2007 corn harvest near 13.3 billion bushels based on an average yield of 154.7 bushels per acre. The demand focus has shifted to the export market, although growth in the use of corn for ethanol production continues to grow. Marketing year exports are projected at 2.35 billion bushels, just short of the 1979-80 record of 2.4 billion bushels. Domestic feed and residual use of corn is expected to remain soft due to competition from co-product feed from the ethanol industry. Use of corn for ethanol production will be influenced by the price of ethanol and the price of corn. As gasoline prices catch up to the increase in crude oil prices, a rebound in ethanol prices might be expected.

It now appears that the 2007 U.S. corn crop is large enough to satisfy domestic and export requirements and to add to the level of stocks by the end of the marketing year. The level of year-ending stocks, along with longer term demand prospects, will have important implications for the magnitude of U.S. corn

acreage needed in 2008. It is expected that cash corn prices could trade in a wide range through the remainder of the marketing year. That range could be more than \$1.00 per bushel. A 2007-08 marketing year average farm price near \$3.40 is anticipated as basis returns to a more normal level.

Production Forecast

In its October *Crop Production* report, the USDA forecast the size of the 2007 U.S. corn crop at 13.318 billion bushels. That forecast is 10 million bushels larger than the September forecast and 264 million larger than the August forecast (Table 1). Based on administrative information, primarily acreage certification data from the USDA's Farm Service Agency, the estimate of planted acreage released in June was revised higher by 728,000 acres, to a total of 93.616 million (Table 2). That is 15.789 million (19.5 percent) more than planted in 2006 and 9.078 million above the modern high established in 1976. Acreage harvested for grain is forecast at 86.071 million acres, 653,000 above the June

forecast and 15.423 million (21.8 percent) more than harvested in 2006.

The U.S. average yield is forecast at 154.7 bushels, 1.1 bushels below the September forecast, 5.6 bushels above the 2006 average, and six bushels below the record yield of 2004 (Table 3). The October yield forecast was two bushels below the September forecast in Illinois, Indiana, and Iowa and six bushels below the September forecast in Nebraska. The yield forecast was increased in some states that experienced adverse growing conditions, including Kentucky, Michigan, and Tennessee.

The USDA will release new yield and production forecasts in November and a final production estimate in January 2008. Following the lower yield forecast in October, some are expecting a further decline in subsequent reports, thinking that high temperatures in August in many areas may have cut yield potential. Since 1975, there have been two other years (1990 and 2006) when the yield forecast was increased in September and lowered in October, as was the case this year. In each of those years, the November forecast was below the October forecast and the January estimate was below the November forecast (Table 3). The October to January decline was 1.5 percent in 1990 and 2.9 percent in 2006. Equivalent declines in 2007 would be 2.3 and 4.5 bushels, respectively, for averages of 152.4 and 150.2 bushels.

Crop condition ratings at the end of the growing season (65 percent good or excellent) would also suggest a slightly lower yield than forecast in October. A model

correlating trend-adjusted yield (using 1960-2006 trend) to final condition ratings points to a yield of 149.4 bushels. A model using the 1986-2006 trend points to a yield of 153 bushels per acre.

Feed and Residual Use of Corn

Feed and residual use of corn has trended higher as livestock numbers have expanded in line with human population growth. The calculated use reached record high levels near 6.16 billion bushels in 2004-05 and 2005-06 (Table 4). The large quantities of co-product feed from ethanol production have recently substituted for whole corn in livestock feed rations so that feed and residual use of corn was expected to decline in 2006-07. In its September 2007 report, the USDA forecast that the 2006-07 feed and residual use of corn would reach only 5.75 billion bushels, resulting in year ending stocks of 1.142 billion bushels. However, the *Grain Stocks* report released on September 28, 2007 placed year-ending (September 1, 2007) stocks at 1.304 billion bushels. The larger than expected stocks estimate forced a reduction in the calculation of 2006-07 marketing year feed and residual use. Use is now estimated at only 5.6 billion bushels (Table 4). Calculated use during the final quarter of the year (June, July, and August) was only 737 million bushels, 237 million (24 percent) less than the calculated use in the same quarter in 2006 (Table 5). Use during the quarter was the smallest since 1995 when supplies of corn were completely exhausted.

A number of explanations have been offered for the apparent low level of corn feeding

this past summer. These include: high levels of feeding of distillers grain, increased wheat feeding due to low quality, and an underestimate of the size of the 2006 crop resulting in an under estimate of feed and residual disappearance. The USDA's calculation of feed and residual use of wheat is typically large for the first quarter (summer) of the marketing year and negative for each of the remaining three quarters. The USDA estimates feed and residual use of wheat during the summer quarter of 2007 at 286 million bushels, 76 million more than during the same quarter in 2006 and about 20 million more than in 2004 and 2005. Yet for the year, feed and residual use of wheat is forecast at only 125 million bushels, the same as during the 2006-07 marketing year, 45 million less than in 2005-06, and 57 million less than in 2004-05. It is not clear that extra wheat feeding this summer explains the sharp drop in corn feeding.

It may be that the 2006 corn crop was underestimated, resulting in an under-estimate of feed and residual use last year. That issue will not be resolved until the release of the final 2006 corn production estimate in the second week of January 2008. In the meantime, the low level of apparent feed and residual use last year impacts the forecast for 2007-08. Increasing hog numbers should support feed demand, but continued large increases in the availability of distillers grain will substitute for corn to some degree. Reduced wheat feeding in the summer of 2008 might also be expected. The USDA forecasts a 100 million bushel (1.8 percent) increase in feed and residual use of corn this year. The magnitude of the increase is logical, but

uncertainty about actual use this past year makes the forecast suspect. We use a slightly higher forecast of 5.75 billion bushels, but not with a high level of confidence.

Ethanol Use of Corn

The USDA estimates that 2.125 billion bushels of corn were used for ethanol production in the 2006-07 marketing year. Use during the current year is forecast at 3.3 billion bushels, 100 million below the September forecast and 200 million below the August forecast. USDA points to declining profit margins for ethanol producers as the reason for the smaller projection. The USDA's Agricultural Marketing Service reports that the average price of ethanol at Iowa processing plants averaged \$1.54 per gallon on October 19, up \$.05 from the average of the previous two Fridays, but down from \$2.00 earlier in the summer and \$2.25 in March 2007. The calculated crush margin at those Iowa plants declined from about \$3.80 per bushel of corn processed in mid-March to \$1.72 per bushel on September 28. The margin was calculated at \$2.05 per bushel on October 19.

The sharp decline in ethanol prices has generally been explained by a combination of weaker demand as mandates have been reached, insufficient blending capacity, and transportation bottlenecks. Still, with crude oil prices moving to new highs and wholesale unleaded gasoline prices now increasing, the low price of ethanol is a bit surprising. Ethanol is price competitive as long as the price is equal to or less than \$.51

(blender tax credit) plus two-thirds of the price of unleaded gas.

As of October 9, 2007, the Renewable Fuels Association, reported that 131 ethanol plants with production capacity of 6.923 billion gallons were in operation. In addition, 73 new plants were under construction and 10 existing plants were adding capacity. The new capacity was estimated at 6.567 billion gallons. With corn continuing as the major feed stock, ethanol production capacity of 13.458 billion gallons could eventually use near 4.9 billion bushels of corn. The timing of the completion of new construction and the likely utilization rate of existing plants is not known. Unless crude oil and gasoline prices decline significantly, ethanol production is expected to continue to expand rapidly. The increase could also be encouraged by new higher federal mandates for renewable energy production. We are using a slightly higher forecast for corn used for ethanol production in the current marketing year.

Corn Exports

Annual corn exports languished in the general area of 1.9 billion bushels from 1998-99 through 2004-05, with the exception of only about 1.6 billion bushels in 2002-03. Exports jumped above 2.1 billion bushels in 2005-06 and 2006-07, aided by smaller Chinese exports and growing world feed consumption. The small Argentine crop in 2005 also provided a temporary boost for U.S. exports.

For the 2007-08 marketing year, the USDA projects another large increase (460 million bushels) in corn consumption outside of the

U.S. and a large decline (235 million bushels) in corn exports by the rest of the world. Much of the reduction in export competition is the result of the anticipation of Chinese exports declining by 145 million bushels. The USDA now forecasts U.S. corn exports during the current marketing year at 2.35 billion bushels. Exports have exceeded that level only three times – 2.367 billion in 1989-90, 2.391 billion in 1980-81, and 2.402 billion in 1979-80.

The USDA's export forecast is 225 million bushels (10.6 percent) larger than exports during the previous year. Through the first six weeks of the marketing year, the USDA reports that cumulative export inspections were 17.6 million bushels, or 6.5 percent less than inspections a year earlier. However, the magnitude of export sales yet to be shipped is extremely large. As of October 11, the USDA reported that 754 million bushels of U.S. corn had been sold for export, but not yet shipped. This compares to unshipped sales a year earlier only 418 million bushels. Larger year-over-year sales were reported for Japan, South Korea, Canada, and Mexico. As of October 11, the sum of actual exports and outstanding sales was 45 percent larger than that of a year ago. The very quick start to the 2007-08 export program might suggest that exports will exceed the USDA projection. However, importers are apparently covering a larger portion of their need earlier than in a typical year and a rebound in world wheat production could soften the export demand for US corn beginning next spring.

With exports of 2.35 billion bushels and domestic use near 10.39 billion bushels, total use of U.S. corn during the current marketing year is expected to reach 12.74 billion bushels. Year ending stocks are projected at 1.897 billion bushels. If the production forecast is lowered, year ending stocks might be near 1.75 billion bushels.

2008 Corn Acreage

The size of the year-ending inventory of corn has important implications for the amount of corn acreage needed in the U.S. in 2008. If corn consumption grows by another billion bushels in the 2008-09 marketing year, use will be near 13.74 billion bushels. With year ending stocks of 1.75 billion bushels about 750 million of that anticipated increase in consumption could be supplied from old crop inventory, with an additional 15 million bushels supplied from imports. The implication is that the 2008 crop would need to be near 12.975 billion bushels to supply all users at "reasonable" prices.

What average yield should be anticipated in 2008? The 2008 trend yield (from 1960) would be about 150.5 bushels. That is lower than the general perception of trend yield, with many analysts suggesting that the trend yield since the early to mid 1990s has been higher than the long term average and that higher trend should be used to project future yields. We are reluctant to use a much higher trend value since yield performance to date does not support the argument that, net of weather effects, the trend yield has increased significantly in recent years. A realistic forecast of trend yield might be about 152 bushels. At that level, harvested

acreage of 85.36 million acres would be needed to produce a crop of 12.975 billion bushels in 2008, implying that planted acreage could drop by no more than one million acres in 2008. If a yield of 155 bushels is expected, acreage could drop by about 2.6 million and still produce a crop of 12.975 billion bushels. If, in addition, year - ending stocks are near two billion bushels, as projected by the USDA, acreage could decline by 4.2 million acres in 2008 and still produce the needed supply. With December 2008 corn futures above \$4.00, corn still appears to be potentially more profitable than soybeans in the heart of the corn belt for 2008. The strength in competition for U.S. corn acres in 2008 will depend on the magnitude of increase in U.S. winter wheat acreage and the magnitude of increase in South American corn and soybean acreage. In a perfect world, U.S. producers would forgo an increase in wheat acres and devote acreage to corn and soybeans since a number of other countries can competitively produce wheat. That does not appear likely to happen, however.

Corn Prices

The price of corn early in the 2007-08 marketing year is much higher than that of a year ago. The average overnight cash bid in central Illinois was \$3.15 in September 2007 compared to \$2.21 in September 2006. The average in the first half of October 2007 was \$3.13 compared to \$2.61 a year earlier. For all of the 2006-07, the average daily cash bid in central Illinois was \$3.33. This compares to the USDA estimate of the weighted average U.S. farm price of \$3.04 for the 2006-07 marketing year.

For the current year, the USDA projects that the weighted average U.S. farm price will fall in a range of \$2.90 to \$3.50. With 20 percent of the 2007 U.S. crop likely already sold at an average price above \$3.00 per bushel and the futures market contracts for the 2007-08 marketing year trading from \$3.69 to \$4.04 it seems likely that the average price for the year will be near the upper end of the USDA's projected range for the average price. Daily cash bids over the next 10 months and beyond could trade in an extremely wide range of \$1.00 or more.

Basis levels were generally very weak in the pre-harvest and early harvest period, but strengthened somewhat as harvest

progressed. Basis levels are still on the weak side by historic comparisons with some additional strengthening likely. Along with the relatively large carry in the futures market, there still appears to be a good return to farm stored corn in the form of basis appreciation.

Issued by Darrel Good
Extension Economist
University of Illinois

Table 1. United States Corn Production Estimates

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
	million bushels																								
July	...	...	...	...	...	5,200	7,348	7,850	7,418	8,762	7,423	9,214	8,122	8,695	9,276	9,592	9,561	10,369	9,266	8,886	10,064	10,923	10,350	10,976	13,054
August	5,237	7,668	8,266	8,316	7,231	4,479	7,321	8,118	7,295	8,770	7,229	9,257	7,832	8,804	9,268	9,738	9,381	10,362	9,238	8,849	9,944	10,961	10,639	11,114	13,308
September	4,390	7,552	8,469	8,268	7,141	4,462	7,321	8,118	7,295	8,770	7,229	9,257	7,832	8,804	9,268	9,738	9,381	10,362	9,238	8,849	9,944	10,961	10,639	11,114	13,308
October	4,259	7,498	8,603	8,220	7,139	4,553	7,449	8,022	7,479	8,938	6,962	9,602	7,541	9,012	9,312	9,743	9,467	10,192	9,430	8,970	10,207	11,613	10,857	10,905	13,318
November	4,121	7,527	8,717	8,223	7,166	4,671	7,590	7,935	7,479	9,329	6,503	10,010	7,374	9,265	9,359	9,836	9,537	10,054	9,546	9,003	10,278	11,741	11,032	10,745	
January	4,204	7,656	8,865	8,253	7,064	4,921	7,527	7,933	7,474	9,479	6,344	10,103	7,374	9,293	9,366	9,761	9,437	9,968	9,507	9,008	10,114	11,807	11,112	10,535	
FINAL	4,174	7,672	8,875	8,226	7,131	4,929	7,532	7,934	7,475	9,477	6,338	10,051	7,400	9,233	9,207	9,759	9,431	9,915	9,503	8,967	10,089	11,807	11,114		

Table 2. United States Corn Planting Intentions, Actual Plantings, and Acres Harvested

Year	Planted Acreage				Harvested Acreage
	February/January Intentions	March Intentions	June Intentions	Actual	
			thousand acres		
1976	80,822	82,727	84,092	84,588	71,506
1977	84,526	83,923	82,735	84,328	71,614
1978	80,944	80,237	78,717	81,675	71,930
1979	80,676	79,209	79,751	81,394	72,400
1980	83,131	82,022	83,478	84,043	72,961
1981	...	83,977	84,677	84,097	74,524
1982	...	84,735	82,129	81,857	72,719
1983	69,569 ^a	58,812	60,129	60,217	51,479
1984	...	81,766	79,940	80,617	71,897
1985	...	82,021	83,217	83,398	75,209
1986	...	78,066	76,646	76,580	68,907
1987	...	67,556	66,024	66,200	59,505
1988	...	66,926	67,519	67,717	58,250
1989	...	73,253	72,790	72,322	64,783
1990	...	74,804	74,574	74,166	66,952
1991	77,500	76,124	75,909	75,957	68,822
1992		79,007	79,335	79,311	72,077
1993		76,486	74,259	73,239	62,933
1994		78,625	78,767	78,921	72,514
1995		75,323	72,800	71,479	65,210
1996		79,920	80,355	79,229	72,644
1997		81,416	80,227	79,537	72,671
1998		80,781	80,798	80,165	72,589
1999		78,219	77,611	77,386	70,487
2000		77,881	79,579	79,551	72,440
2001		76,693	76,109	75,702	68,768
2002		79,047	78,847	78,894	69,330
2003		79,022	79,066	78,603	70,944
2004		79,004	80,968	80,929	73,631
2005		81,413	81,592	81,779	75,117
2006		78,019	79,366	78,327	70,648
2007		90,454	92,888	93,616	86,071

^a February

Table 3. United States Corn Yield Estimates

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
	bushels per acre																																
July 1	93.0	90.5	89.4	90.1	95.8	99.3	95.9	...	...	...	...	...	...	...	87.0																		
August 1	87.4	86.7	87.3	96.1	102.1	93.0	104.3	113.9	99.9	107.9	110.6	120.4	121.4	78.5	112.8	117.7	107.8	121.3	116.0	128.4	125.6	118.7	125.3	130.0	134.7	141.9	133.9	125.2	139.9	148.9	139.2	152.2	152.8
September 1	85.1	82.8	89.7	100.3	104.6	91.8	107.1	113.9	85.1	106.3	113.3	119.7	119.9	78.5	112.4	121.7	106.1	121.4	113.1	129.0	121.1	120.2	125.2	132.0	132.2	141.8	133.5	125.4	138.5	149.4	143.2	154.7	155.8
October 1	86.2	82.7	90.8	100.7	106.4	90.8	109.0	114.2	82.9	105.5	115.1	119.2	119.9	80.2	114.4	120.3	108.8	123.8	110.3	133.8	116.6	123.0	125.8	132.0	133.5	139.6	136.3	127.2	142.2	158.4	146.1	153.5	154.7
November 1	87.2	85.5	91.5	101.2	109.2	90.8	109.2	114.2	80.5	105.9	116.6	119.3	120.3	82.3	116.6	119.0	108.6	129.3	103.1	138.4	113.7	126.5	126.4	133.3	134.5	137.7	138.0	127.6	143.2	160.2	148.4	151.2	
January 1	86.2	87.4	90.8	101.2	109.4	91.0	109.9	114.8	81.6	106.6	118.0	119.3	119.4	84.6	116.2	118.5	108.6	131.4	100.7	138.6	113.5	127.1	127.0	134.4	133.8	137.1	138.2	130.0	142.2	160.4	147.9	149.1	
FINAL	86.4	88.0	90.8	101.0	109.5	91.0	108.9	113.2	81.1	106.7	118.0	119.3	119.8	84.6	116.3	118.5	108.6	131.5	100.7	138.6	113.5	127.1	126.7	134.4	133.8	136.9	138.2	129.3	142.2	160.7	148.0		

Table 4. Corn Annual Balance Sheet

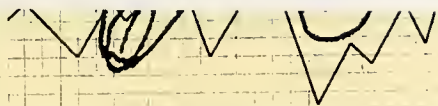
	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08 ^a
						million bushels													
Carryin	1,930	1,344	1,521	1,100	2,113	850	1,558	426	883	1,308	1,787	1,718	1,899	1,596	1,087	958	2,114	1,967	1,304
Production	7,532	7,934	7,475	9,477	6,338	10,051	7,400	9,233	9,207	9,759	9,431	9,915	9,503	8,968	10,089	11,807	11,114	10,535	13,318
TOTAL ^b	9,464	9,282	9,016	10,584	8,472	10,910	8,974	9,672	10,099	11,085	11,232	11,659	11,412	10,578	11,190	12,776	13,237	12,514	14,637
Seed, food, industrial	1,370	1,425	1,533	1,556	1,613	1,715	1,628	1,714	1,805	1,846	1,913	1,957	2,046	2,340	2,537	2,686	2,981	3,485	4,640
Export	2,367	1,727	1,584	1,663	1,328	2,177	2,228	1,797	1,504	1,981	1,937	1,935	1,905	1,588	1,897	1,818	2,134	2,115	2,350
Feed and residual	4,382	4,609	4,798	5,252	4,680	5,460	4,693	5,277	5,482	5,471	5,664	5,848	5,864	5,563	5,798	6,158	6,155	5,600	5,750
TOTAL	8,120	7,761	7,915	8,471	7,621	9,352	8,548	8,789	8,791	9,298	9,515	9,741	9,815	9,491	10,232	10,662	11,270	11,210	12,740
Carryout	1,344	1,521	1,100	2,113	850	1,558	426	883	1,308	1,787	1,718	1,899	1,596	1,087	958	2,114	1,967	1,304	1,897
U.S. average price	\$2.36	\$2.28	\$2.37	\$2.07	\$2.50	\$2.26	\$3.24	\$2.71	\$2.45	\$1.94	\$1.82	\$1.85	\$1.97	\$2.32	\$2.42	\$2.06	\$2.00	\$3.04	\$3.40

^a Projected^b Includes imports

Table 5. Corn Quarterly Balance Sheet

	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
	million bushels																							
September 1 stocks	3,523	1,006	1,648	4,040	4,882	4,259	1,930	1,344	1,521	1,100	2,113	850	1,558	426	883	1,308	1,787	1,718	1,899	1,596	1,087	958	2,114	1,967
Production	4,174	7,672	8,875	8,226	7,131	4,929	7,532	7,934	7,475	9,477	6,338	10,051	7,400	9,233	9,207	9,759	9,431	9,915	9,503	8,968	10,089	11,807	11,114	10,535
TOTAL ^a	7,699	8,680	10,534	12,267	12,016	9,191	9,464	9,282	9,016	10,584	8,472	10,910	8,974	9,672	10,099	11,085	11,232	11,640	11,412	10,578	11,190	12,776	13,237	12,514
September-November																								
Seed, food, ind	227	244	276	295	296	302	312	338	361	370	383	410	417	388	435	450	459	466	492	549	588	643	697	792
Export	493	503	415	318	396	471	582	383	421	488	435	449	660	487	380	450	535	507	448	393	470	499	477	596
Feed, residual	1,326	1,301	1,219	1,348	1,551	1,344	1,487	1,619	1,673	1,814	1,701	1,963	1,778	1,895	2,030	2,118	2,188	2,131	2,200	1,986	2,166	2,173	2,241	2,183
TOTAL	2,046	2,048	1,910	1,961	2,243	2,117	2,381	2,339	2,455	2,672	2,519	2,822	2,856	2,759	2,845	3,018	3,182	3,104	3,140	2,928	3,224	3,315	3,415	3,571
December 1 stocks	5,652	6,631	8,615	10,305	9,771	7,072	7,082	6,940	6,547	7,906	5,937	8,080	6,106	6,903	7,247	8,052	8,039	8,530	8,265	7,638	7,954	9,452	9,815	8,933
Seed, food, ind	212	236	262	281	288	301	313	330	362	365	379	410	405	400	425	434	447	465	482	563	609	637	708	818
Export	506	580	460	313	405	502	682	471	362	463	330	590	562	525	380	465	465	415	448	390	506	439	474	513
Feed, residual	1,059	1,192	1,306	1,463	1,444	1,065	1,276	1,351	1,267	1,401	1,240	1,492	1,344	1,486	1,503	1,460	1,529	1,607	1,540	1,557	1,571	1,622	1,647	1,536
TOTAL	1,787	2,008	2,028	2,057	2,137	1,868	2,271	2,152	1,991	2,229	1,949	2,493	2,311	2,411	2,308	2,359	2,441	2,488	2,471	2,510	2,686	2,698	2,829	2,867
March 1 stocks	3,865	4,623	6,587	8,248	7,636	5,204	4,812	4,789	4,561	5,678	3,986	5,592	3,800	4,494	4,940	5,698	5,602	6,043	5,795	5,132	5,271	6,756	6,987	6,068
Seed, food, ind	253	294	307	333	337	353	376	384	414	414	423	452	433	471	470	495	512	514	539	617	676	700	774	918
Export	513	475	201	496	510	592	601	454	371	411	270	568	610	433	350	497	451	455	497	393	465	428	562	478
Feed, residual	954	1,019	1,091	1,088	951	841	993	960	1,042	1,146	950	1,159	1,044	1,087	1,084	1,097	1,058	1,153	1,166	1,141	1,166	1,311	1,293	1,144
TOTAL	1,720	1,788	1,599	1,917	1,798	1,786	1,970	1,798	1,828	1,971	1,642	2,180	2,087	2,001	1,904	2,089	2,022	2,122	2,203	2,151	2,307	2,439	2,629	2,540
June 1 stocks	2,145	2,836	4,990	6,332	5,839	3,419	2,843	2,992	2,739	3,709	2,360	3,415	1,718	2,497	3,040	3,616	3,586	3,324	3,597	2,985	2,970	4,321	4,362	3,433
Seed, food, ind	238	293	307	324	331	341	369	374	396	407	429	442	373	460	475	467	496	512	532	611	664	707	802	957
Export	374	292	151	365	405	463	503	419	430	301	293	570	396	353	394	572	485	564	512	411	459	452	620	538
Feed, residual	527	603	499	761	843	685	627	679	816	891	789	846	527	809	865	792	890	951	958	879	892	1,051	974	737
TOTAL	1,139	1,188	957	1,450	1,580	1,489	1,499	1,472	1,642	1,599	1,511	1,858	1,295	1,617	1,734	1,831	1,871	2,027	2,002	1,900	2,015	2,210	2,396	2,332
September 1 stocks	1,006	1,648	4,040	4,882	4,259	1,930	1,344	1,521	1,100	2,113	850	1,558	426	883	1,308	1,787	1,718	1,899	1,596	1,087	958	2,114	1,967	1,304
Annual																								
Seed, food, ind	930	1,067	1,152	1,233	1,251	1,298	1,370	1,425	1,533	1,556	1,613	1,715	1,628	1,714	1,805	1,846	1,913	1,957	2,046	2,340	2,537	2,687	2,981	3,485
Export	1,887	1,850	1,227	1,492	1,716	2,029	2,367	1,727	1,584	1,663	1,328	2,177	2,228	1,797	1,504	1,989	1,937	1,941	1,905	1,588	1,900	1,818	2,134	2,125
Feed, residual	3,876	4,115	4,114	4,660	4,789	3,934	4,382	4,609	4,798	5,252	4,680	5,460	4,693	5,277	5,482	5,468	5,565	5,842	5,854	5,563	5,795	6,157	6,155	5,600
TOTAL	6,693	7,032	6,494	7,385	7,757	7,260	8,120	7,761	7,916	8,471	7,622	9,352	8,548	8,789	8,791	9,298	9,515	9,741	9,815	9,491	10,232	10,662	11,270	11,210

^a Includes imports for the entire year



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Grain Price OUTLOOK

SOYBEANS: WHO WILL PRODUCE THEM?

OCTOBER 2007

Darrel Good

2007 – No. 8

Summary

The USDA's October *Crop Production* report confirmed prospects for a small 2007 U.S. soybean harvest. The crop is forecast at 2.598 billion bushels. 590 million smaller than the record crop of 2006. Even with large stocks of old crop soybeans on hand at the beginning of this year, the small crop means that consumption of U.S. soybeans will have to decline by more than 100 million bushels during the current marketing year. That decline is expected to occur in the export market, as large South American supplies will fill the gap.

Stocks of U.S. soybeans at the end of the current marketing year will be at minimal level, suggesting a need to increase U.S. soybean acreage in 2008. The magnitude of increase needed will hinge largely on the prospective size of the 2008 South American harvest. The price of soybeans necessary to increase acreage sufficiently will be determined by the size of the needed increase, the size of the increase in winter wheat acreage, and the price of alternative crops, particularly the price of corn.

Soybean prices are expected to be well supported as long as the market perceives a need for an increase in U.S. acreage in 2008. Current spot cash and futures prices are well above the 2007-08 average farm price projected by the USDA, even with a continuation of a weak basis. Prices for spring/summer 2008 delivery are approaching \$10.00 in the eastern corn belt. A significant portion of the 2007 crop should probably already be priced. For remaining unpriced soybeans, potential basis appreciation offers a nice return to farm stored soybeans. Some quantity should be held unpriced due to significant uncertainty about 2008 production potential.

2007 U.S. Crop Size

The USDA's October forecast placed the 2007 U.S. soybean crop at 2.598 billion bushels, 21 million smaller than the September forecast and 27 million less than the August forecast (Table 1). The estimate of planted acreage, 63.669 million, is 412,000 less than the June forecast (Table 2) while the estimate of harvested acreage, 62.8918 million, is 447,000 below the

September forecast. The difference between planted and harvested acreage of 851,000 acres is consistent with the experience of the previous two years.

Planted acres of soybeans in 2007 were 11.853 million (15.7 percent) less than the record acreage of 2006. The largest year-over-year decline (6.65 million) occurred in the seven states classified as the western corn belt in Table 3. Acreage was reduced by 3.9 million in the five eastern corn belt states. Acreage increased by 262,000 (12.5 percent) in the five southeastern states. The 12 corn belt states accounted for 82 percent of the planted acreage in 2007, down from 83.1 percent in 2006.

The 2007 U.S. average soybean yield is forecast at 41.4 bushels per acre, essentially unchanged from the August and September forecasts. That forecast is 1.3 bushels below the 2006 average and 1.6 bushels below the record yield of 2005 (Table 4). The yield forecast is very consistent with the forecast based on the percent of the crop rated in good or excellent condition (58 percent) at the end of the growing season. A model correlating trend-adjusted yield (1960-2006 trend) to the percent of the crop rated good or excellent at season's end projects a 2007 yield of 41.6 bushels. We do not expect a significant change in the yield or production forecast in November.

Domestic Use

The domestic crush of soybeans has trended higher over time, fueled primarily by increasing demand for soybean meal from the growing livestock production sector. That increase has averaged 41 million bushels per year over the past 18 years, but only about

20 million per year over the past five years (Table 5). Crush was a record 1.8 billion bushels in 2006-07. For the current marketing year, domestic meal consumption should be supported by an increase in livestock and poultry production, but should find increased competition from distillers grain. The USDA projects a 2.9 percent increase in domestic meal consumption following a 3.3 percent increase in 2006-07. The forecast may be a bit on the high side, depending on how aggressively the hog sector expands.

Soybean meal exports reached a 9-year high in 2006-07 with the total projected at 8.85 million tons (Table 6). World trade in soybean meal is expected to increase in 2007-08, led by a two million-ton increase in imports by the European Union. However, the entire increase is expected to be captured by Argentina. The USDA expects U.S. meal exports will decline modestly, to a total of 8.25 million tons. Expected meal demand points to a 2007-08 U.S. soybean crush of 1.825 billion bushels, 19 million larger than the crush of last year and consistent with the recent trend increase in the domestic crush.

A crush of 1.825 billion bushels would produce about 20.715 billion pounds of soybean oil if oil yields from the 2007 crop are near a typical level of just over 11.3 pounds per bushel. The nature of domestic soybean oil demand is changing very significantly. Demand for food consumption is weakening as processors substitute lower trans-fat oils for soybean oil. At the same time, consumption of soybean oil for bio-diesel production is increasing rapidly. Use for bio-diesel was reported at 1.555 billion pounds in 2005-06, estimated at 2.9 billion

pounds in 2006-07, and is forecast at 4.2 billion pounds in 2007-08. For the current year, the USDA expects less than a 1 percent increase in the domestic use of soybean oil for purposes other than bio-diesel. A large increase in sunflower production will accommodate further substitution for soybean oil. The projected increase in food use of soybean oil is well short of the long term average increase of about 2 percent per year. Domestic use for all purposes is projected at 20.2 billion pounds, 7.4 percent above the estimate for the year just ended (Table 7).

Exports of U.S. soybean oil have been robust in recent months, with the 2006-07 marketing year total expected to be 1.9 billion pounds. Like soybean meal, Argentina is expected to capture a larger share of the soybean oil export market during the current marketing year. U.S. exports are projected at 1.45 billion pounds. After moving to record levels during the 2006-07 marketing year, domestic soybean oil inventories are now on the decline. That decline is expected to continue during the current marketing year. Year ending stocks are projected at a comfortable 1.93 billion pounds, well below the 3.01 billion at the end of the 2005-06 marketing year and the 2.825 billion at the end of the 2006-07 marketing year.

Soybeans will continue to be crushed at a pace to meet soybean meal demand. However, as soybean oil use for bio-diesel production increases and domestic oil supplies tighten, the crush could be dictated by soybean oil demand in the foreseeable future. If and when that happens, market dynamics will change significantly. If rapidly increasing requirements for soybean oil produces a "surplus" of soybean meal, meal

prices could be pushed to relatively low levels since it is not a commodity that can be stored for a long period of time.

In addition to seed demand, a third but extremely small, segment of domestic use of soybeans is in the feed and residual category. This category captures that small quantity of whole soybeans that are fed directly, but also is where differences between estimated supplies and use are reconciled. Total seed, feed and residual use during the 2006-07 marketing year was relatively small at about 150 million bushels, but within the range of recent experience (Table 8). The USDA indicated that after reviewing all available data, the small residual figure did not compel a change in the estimated size of the 2006 crop. The final estimate of that crop will be released in the second week of January.

Soybean Exports

Annual U.S. soybean exports reached a record 1.118 billion bushels, during the 2006-07 marketing year fueled by an increase in world soybean consumption and smaller exports from Brazil. For the current marketing year, U.S. soybean supplies are not large enough to maintain the record level of domestic crush without a reduction in exports. If the crop size has been accurately forecast, if domestic use is correctly forecast at 1.987 billion bushels, and if year ending stocks were reduced to an absolute minimum of 125 million bushels, exports would be limited to 1.065 billion bushels, 53 million less than exported last year.

The USDA forecasts U.S. exports at 975 million bushels, 12.8 percent below exports during the 2006-07 marketing year even

though consumption of soybeans outside of the U.S. and South America is expected to increase by 160 million bushels and production outside of the U.S. and South America is expected to be down by 35 million bushels. The gap left by the drop in U.S. exports is expected to be filled by South America through a combination of increased production and a draw down in inventories.

Through the first six weeks of the 2007-08 marketing year, cumulative U.S. soybean export inspections were 17.2 million bushels (14 percent) smaller than inspections of a year earlier. Unshipped export sales as of October 11 were 17 million bushels less than sales of a year earlier. Early in the season, some softness in export demand for U.S. soybeans is being experienced. However, demand may remain relatively strong until the 2008 South American crop becomes available. Exports of 975 million bushels would leave year ending U.S. stocks at a relatively low 215 million bushels. World inventories are expected to remain at a very high level, but well below the record level of 2006-07. Those large inventories are important as they provide some buffer to a shortfall in production in 2008.

Production Response

High soybean prices are expected to lead to increased world soybean acreage for harvest in 2008. South American producers will have the first opportunity to respond as planting is currently underway there. The USDA projects that South American acreage will increase by 5.7 percent to a total of 105.6 million acres. South American production in 2008 is forecast at 4.34 billion bushels, only 120 million bushels larger than the 2007 harvest. That compares to the 590 million

bushel reduction in U.S. production in 2007. If importers require another 200 million bushels of soybeans in 2008-09, U.S. producers may have incentive to increase soybean acreage in 2008 if the South American crop is no larger than currently projected. However, South American inventories can likely be further reduced to supplement the 2008 harvest if needed.

It may be that there will be need for U.S. producers to increase plantings by four to five million acres in 2008. The price of soybeans needed to accomplish that size of increase depends to a large degree on the price of corn and the magnitude of increase in winter wheat seedings. The corn/soybean planting decision by corn belt producers will be influenced by expected prices, yields, and production costs. For example, November 2008 soybean futures at \$9.70 translates to an expected harvest price of about \$9.35 in central Illinois. December 2008 corn futures at \$4.10 translates into an expected harvest cash price of about \$3.75. With central Illinois yield expectations of 53 bushels for soybeans and 185 bushels for corn (equal to the 2006 and 2007 average), expected gross returns would be about \$496 per acre for soybeans and \$694 for corn. The difference of \$198 would more than compensate for the higher cost of producing corn, making corn a generally more attractive alternative than soybeans in that area. The outcomes of this type of calculation will differ from region to region and farm to farm. The early chatter, however, suggests that many producers think that 2008 soybean prices above \$9.00 make soybean production preferable to corn. The decision about crop mix in 2008 will remain in flux until more is known about South American crop prospects and U.S. winter wheat planting decisions.

Soybean Prices

Soybean prices have moved steadily higher since the fall of 2006 as the strength of demand and the extent of the cut in production in the U.S. were revealed. November 2007 futures traded to a high of \$10.175, but currently about \$.35 below that peak. The average spot cash price of soybeans in central Illinois reached a peak of \$9.50 on September 27, as basis levels remained generally very weak. Current cash prices near \$9.40 reflect some basis improvement. To a large extent, the weak basis may be a function of "over valued" futures prices as speculative activity remains extremely large. As soybean stocks are reduced and futures values move toward fundamental value, basis levels are expected to strengthen as the marketing year progresses.

Soybean price levels are expected to remain well supported for the near term in order to motivate an increase in South American acreage. Once those decisions are revealed and the growing season gets underway, prices will largely take direction from the market's take on the needed increase in U.S. acreage in 2008. The generally weak basis and the \$.42 carry from November 2007 to July 2008 futures offer a decent opportunity for hedging farm-stored soybeans. Holding some soybeans unpriced may be prudent as well, given all the production uncertainty into 2008.

Issued by Darrel Good
Extension Economist
University of Illinois

Table 1. United States Soybean Production Estimates

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
	million bushels																												
August 1	2,130	1,880	2,017	2,293	1,843	2,035	1,959	1,979	2,000	1,474	1,905	1,836	1,869	2,079	1,902	2,282	2,246	2,300	2,744	2,825	2,870	2,989	2,867	2,628	2,862	2,877	2,791	2,928	2,625
September 1	2,174	1,831	2,089	2,314	1,535	2,028	2,063	1,980	1,957	1,472	1,889	1,835	1,817	2,085	1,909	2,316	2,285	2,270	2,746	2,909	2,778	2,900	2,834	2,656	2,643	2,836	2,856	3,093	2,619
October 1	2,213	1,757	2,107	2,300	1,517	1,972	2,108	1,992	1,968	1,501	1,926	1,823	1,934	2,108	1,891	2,458	2,190	2,346	2,722	2,769	2,696	2,823	2,907	2,654	2,468	3,107	2,967	3,189	2,598
November 1	2,236	1,775	2,077	2,300	1,535	1,902	2,129	2,009	1,960	1,512	1,937	1,904	1,962	2,167	1,834	2,523	2,183	2,403	2,736	2,763	2,673	2,777	2,923	2,690	2,452	3,150	3,043	3,204	
January 1	2,268	1,817	2,030	2,277	1,595	1,861	2,099	2,007	1,905	1,539	1,927	1,922	1,986	2,197	1,809	2,558	2,152	2,382	2,727	2,757	2,643	2,770	2,891	2,730	2,418	3,141	3,086	3,188	
FINAL	2,261	1,798	1,989	2,190	1,636	1,861	2,099	1,943	1,938	1,549	1,924	1,926	1,987	2,190	1,870	2,515	2,174	2,380	2,689	2,741	2,654	2,758	2,891	2,756	2,454	3,124	3,063		

Table 2. Soybean Planting Intentions, Actual Plantings, and Acres Harvested

Year	January Intentions	Mar./April Intentions	June/July Intentions	Actual	Harvested Acreage
			million acres		
1975	57.5	56.6	54.6	54.6	53.8
1976	50.9	49.3	49.0	50.3	49.4
1977	53.1	55.7	59.0	59.0	57.6
1978	63.9	63.7	64.0	64.7	63.3
1979	66.3	68.8	71.6	71.4	70.3
1980	71.6	71.3	70.3	69.9	67.8
1981	----	69.8	68.5	67.5	66.2
1982	69.5 ^a	---	72.2	70.9	69.4
1983	68.8 ^a	65.8 ^b	63.3	63.8	62.5
1984	65.2 ^a	---	68.0	67.8	66.1
1985	64.4 ^a	---	63.3	63.1	61.6
1986	---	62.0	61.8	60.4	58.3
1987	---	56.9	58.7	58.180	57.172
1988	---	58.0	58.5	58.840	57.373
1989	---	61.7	61.3	60.820	59.282
1990		59.42	58.05	57.795	56.283
1991	58.5	57.12	59.78	59.180	58.169
1992		57.42	59.03	59.180	58.233
1993		59.30	61.58	60.085	57.307
1994		61.12	61.78	61.620	60.809
1995		61.45	63.105	62.495	61.544
1996		62.478	63.895	64.195	63.349
1997		68.800	70.850	70.005	69.110
1998		72.000	72.720	72.025	70.441
1999		73.105	74.205	73.730	72.446
2000		74.871	74.501	74.266	72.408
2001		76.657	75.416	74.075	72.975
2002		72.966	72.993	73.963	72.497
2003		73.182	73.653	73.404	72.476
2004		75.411	74.809	75.208	73.958
2005		73.910	73.103	72.032	71.781
2006		76.895	74.930	75.522	74.920
2007		67.140	64.081	63.669	(62.818)

^a February 1^b May 1

Table 3. Planted Acres of Soybeans by Region

Region	Western Corn Belt ^a			Eastern Corn Belt ^b			Mid-South ^c			Southeast ^d			East Coast ^e			United States		
	000 acres	%		000 acres	%		000 acres	%		000 acres	%		000 acres	%		000 acres	%	
1976	16,145	32.1		14,530	28.9		13,630	27.1		4,799	9.6		1,122	2.3		50,226	100.0	
1979	23,370	32.7		19,620	27.5		18,470	25.9		8,360	11.7		1,591	2.2		71,411	100.0	
1986	24,875	41.2		18,300	30.3		10,995	18.2		4,680	7.8		1,535	2.5		60,385	100.0	
1987	24,120	41.5		18,580	31.9		10,330	17.8		3,675	6.3		1,475	2.5		58,180	100.0	
1988	24,310	41.3		18,680	31.7		10,460	17.8		3,810	6.5		1,580	2.7		58,840	100.0	
1989	24,790	40.8		19,020	31.3		10,750	17.7		4,460	7.3		1,800	2.9		60,820	100.0	
1990	23,750	41.1		18,490	32.0		10,270	17.2		3,650	6.3		1,635	2.8		57,795	100.0	
1991	26,035	44.0		19,420	32.8		8,990	15.2		3,005	5.1		1,730	2.9		59,180	100.0	
1992	25,400	42.9		20,000	33.8		8,980	15.2		2,915	5.2		1,715	2.9		59,180	100.0	
1993	25,300	42.1		20,410	34.0		9,690	16.1		2,915	4.9		1,770	2.9		60,085	100.0	
1994	27,220	44.1		20,510	33.3		9,220	15.0		2,875	4.7		1,795	2.9		61,620	100.0	
1995	28,210	45.1		21,130	33.8		9,130	14.7		2,290	3.6		1,735	2.8		62,495	100.0	
1996	28,250	44.0		22,370	34.8		9,390	14.6		2,565	4.0		1,620	2.5		64,195	100.0	
1997	32,450	46.4		22,610	32.3		10,390	14.8		2,777	4.0		1,778	2.5		70,005	100.0	
1998	33,700	46.8		23,650	32.8		10,180	14.1		2,690	3.8		1,805	2.5		72,025	100.0	
1999	35,800	48.5		24,100	32.7		9,700	13.2		2,360	3.2		1,770	2.4		73,730	100.0	
2000	37,050	49.9		24,050	32.4		9,010	12.1		2,230	3.0		1,926	2.6		74,266	100.0	
2001	37,700	50.9		24,650	33.3		7,685	10.4		2,135	2.9		1,905	2.5		74,075	100.0	
2002	37,070	50.1		24,740	33.5		8,170	11.0		2,145	2.9		1,838	2.5		73,963	100.0	
2003	37,650	51.3		23,770	32.4		7,990	11.3		2,253	3.0		1,741	2.4		73,404	100.0	
2004	38,000	50.5		23,550	31.4		9,100	12.1		2,579	3.4		1,979	2.6		75,208	100.0	
2005	36,350	50.5		23,010	31.9		8,485	11.8		2,259	3.1		1,928	2.7		72,032	100.0	
2006	38,700	51.2		24,100	31.9		8,725	11.6		2,092	2.8		1,905	2.5		75,522	100.0	
2007	32,050	50.3		20,200	31.7		7,295	11.5		2,354	3.7		1,770	2.8		63,669	100.0	

^a Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota^b Illinois, Indiana, Michigan, Ohio, Wisconsin^c Arkansas, Kentucky, Louisiana, Mississippi, Oklahoma, Tennessee, Texas^d Alabama, Florida, Georgia, North Carolina, South Carolina^e Delaware, Maryland, New Jersey, New York, Pennsylvania, Virginia, West Virginia

Table 4. United States Soybean Yield Estimates

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
	million bushels																												
August 1	30.3	27.4	30.2	32.3	29.7	30.5	31.5	32.9	34.7	26.0	32.3	32.5	31.8	35.8	33.8	37.6	36.4	36.3	39.5	39.5	39.2	40.7	38.7	36.5	39.4	39.1	38.7	39.6	41.5
September 1	30.9	27.0	31.2	32.6	24.9	30.3	33.2	33.1	34.0	25.9	32.0	32.4	31.0	35.9	34.0	38.2	37.0	35.8	39.3	40.6	37.9	39.5	38.2	37.0	36.4	38.5	39.6	41.8	41.4
October 1	31.5	26.0	31.5	32.4	24.7	29.5	33.9	33.3	34.2	26.4	32.6	32.3	33.0	36.3	33.7	40.5	35.5	37.0	39.0	38.7	37.0	38.7	39.2	37.0	34.0	42.0	41.6	42.8	41.4
November 1	31.8	26.5	31.0	32.4	25.0	28.5	34.2	33.8	34.1	26.6	32.8	33.7	33.5	37.3	32.7	41.5	35.4	37.9	39.2	38.6	36.7	38.0	39.4	37.5	33.8	42.6	42.7	43.0	
January 1	32.2	26.8	30.4	32.2	25.7	28.2	34.1	33.8	33.7	26.8	32.4	34.0	34.3	37.6	32.0	41.9	34.9	37.6	39.0	38.9	36.5	38.1	39.6	37.8	33.4	42.5	43.3	42.7	
FINAL	32.1	26.5	30.1	31.5	26.2	28.1	34.1	33.3	33.9	27.0	32.3	34.1	34.2	37.6	32.6	41.4	35.3	37.6	38.9	38.9	36.6	38.1	39.6	38.0	33.9	42.2	42.2	43.0	

Table 5. Soybean Balance Sheet -- Years Beginning September 1

	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08 ^a
	million bushels																		
Carryin	182	239	329	278	292	209	335	183	132	200	348	290	248	208	178	112	256	449	573
Production	<u>1,924</u>	<u>1,926</u>	<u>1,987</u>	<u>2,190</u>	<u>1,870</u>	<u>2,515</u>	<u>2,174</u>	<u>2,380</u>	<u>2,689</u>	<u>2,741</u>	<u>2,654</u>	<u>2,758</u>	<u>2,891</u>	<u>2,756</u>	<u>2,454</u>	<u>3,124</u>	<u>3,063</u>	<u>3,188</u>	<u>2,598</u>
TOTAL ^b	2,109	2,167	2,320	2,470	2,168	2,729	2,514	2,573	2,826	2,944	3,006	3,052	3,141	2,969	2,638	3,242	3,322	3,647	3,177
Crush	1,146	1,187	1,254	1,279	1,276	1,405	1,369	1,436	1,597	1,590	1,578	1,640	1,700	1,615	1,530	1,696	1,739	1,806	1,825
Export	623	557	684	770	589	838	851	882	870	805	975	996	1,064	1,045	887	1,097	947	1,118	1,075
Seed, feed, residual	<u>101</u>	<u>94</u>	<u>103</u>	<u>129</u>	<u>94</u>	<u>151</u>	<u>111</u>	<u>123</u>	<u>159</u>	<u>201</u>	<u>163</u>	<u>169</u>	<u>169</u>	<u>131</u>	<u>109</u>	<u>192</u>	<u>187</u>	<u>150</u>	<u>162</u>
TOTAL	1,870	1,838	2,041	2,178	1,954	2,394	2,331	2,441	2,626	2,596	2,716	2,804	2,933	2,791	2,526	2,986	2,873	3,074	2,962
Carryout	239	329	278	292	209	335	183	132	200	348	290	248	208	178	112	256	449	573	215
U.S. Average price	\$5.70	\$5.75	\$5.58	\$5.60	\$6.40	\$5.48	\$6.77	\$7.35	\$6.47	\$4.93	\$4.63	\$4.54	\$4.38	\$5.53	\$7.34	\$5.74	\$5.66	\$6.43	\$8.85

^a Projected^b Includes imports

Table 6. Soybean Meal Balance Sheet -- Years Beginning October 1

	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08
	thousand tons																		
Beginning stocks	173	318	285	230	204	150	223	212	210	218	330	293	383	240	220	211	172	314	300
Production	<u>27,719</u>	<u>28,325</u>	<u>29,831</u>	<u>30,364</u>	<u>30,514</u>	<u>33,270</u>	<u>32,527</u>	<u>34,210</u>	<u>38,176</u>	<u>37,792</u>	<u>37,591</u>	<u>39,385</u>	<u>40,292</u>	<u>38,213</u>	<u>36,325</u>	<u>40,715</u>	<u>41,244</u>	<u>42,981</u>	<u>43,385</u>
TOTAL ^a	27,982	28,688	30,183	30,687	30,788	33,483	32,825	34,524	38,443	38,109	37,970	39,729	40,818	38,619	36,830	41,073	41,557	43,450	43,850
Domestic	22,291	22,934	23,007	24,251	25,283	26,542	26,611	27,320	28,895	30,657	30,345	31,643	33,070	32,379	31,449	33,561	33,195	34,300	35,300
Exports	<u>5,319</u>	<u>5,469</u>	<u>6,946</u>	<u>6,232</u>	<u>5,356</u>	<u>6,717</u>	<u>6,002</u>	<u>6,994</u>	<u>9,330</u>	<u>7,122</u>	<u>7,332</u>	<u>7,703</u>	<u>7,508</u>	<u>6,019</u>	<u>5,170</u>	<u>7,340</u>	<u>8,048</u>	<u>8,850</u>	<u>8,250</u>
TOTAL	27,610	28,403	29,953	30,483	30,639	33,260	32,613	34,314	38,225	37,779	37,677	39,346	40,578	38,399	36,619	40,901	41,243	43,150	43,550
Ending stocks	318	285	230	204	150	223	212	210	218	330	293	383	240	220	211	172	314	300	300
Price ^b	\$186.48	\$181.38	\$189.21	\$193.75	\$192.86	\$162.55	\$235.92	\$270.90	\$185.28	\$138.55	\$167.70	\$173.60	\$167.73	\$181.57	\$256.05	\$182.89	\$174.17	\$205.44	\$250.00

^a Includes imports^b Bulk, Decatur, Illinois 48%

Table 7. Soybean Oil Balance Sheet -- Years Beginning October 1

	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08
	million pounds																		
Beginning stocks	1,715	1,305	1,786	2,239	1,555	1,103	1,137	2,015	1,520	1,382	1,520	1,995	2,767	2,358	1,489	1,076	1,699	3,010	2,825
Production	<u>13,003</u>	<u>13,406</u>	<u>14,346</u>	<u>13,778</u>	<u>13,951</u>	<u>15,613</u>	<u>15,240</u>	<u>15,752</u>	<u>18,143</u>	<u>18,081</u>	<u>17,825</u>	<u>18,420</u>	<u>18,898</u>	<u>18,438</u>	<u>17,080</u>	<u>19,360</u>	<u>20,387</u>	<u>20,475</u>	<u>20,715</u>
TOTAL ^a	14,740	14,728	16,132	16,027	15,574	16,733	16,472	17,821	19,723	19,546	19,427	20,488	21,711	20,843	18,875	20,462	22,122	23,525	23,580
Domestic	12,082	12,163	12,246	13,053	12,941	12,916	13,465	14,263	15,262	15,655	16,056	16,320	16,833	17,089	16,864	17,439	17,959	18,800	20,200
Exports	<u>1,353</u>	<u>779</u>	<u>1,647</u>	<u>1,419</u>	<u>1,529</u>	<u>2,680</u>	<u>992</u>	<u>2,037</u>	<u>3,079</u>	<u>2,372</u>	<u>1,376</u>	<u>1,401</u>	<u>2,519</u>	<u>2,263</u>	<u>936</u>	<u>1,324</u>	<u>1,153</u>	<u>1,900</u>	<u>1,450</u>
TOTAL	13,435	12,942	13,893	14,472	14,471	15,596	14,457	16,300	18,341	18,027	17,432	17,721	19,353	19,352	17,800	18,763	19,112	20,780	21,650
Ending stocks	1,305	1,786	2,239	1,555	1,103	1,137	2,015	1,520	1,382	1,520	1,995	2,767	2,358	1,491	1,076	1,699	3,010	2,825	1,930
Average Price ^b	22.3¢	21.0¢	19.1¢	21.4¢	27.1¢	27.6¢	24.75¢	22.5¢	25.8¢	19.9¢	15.6¢	14.2¢	16.5¢	22.0¢	30.0¢	23.0¢	23.4¢	31.0¢	38.0¢

^a Includes imports^b Bulk, Decatur, Illinois

Table 8. Soybean Quarterly Balance Sheet

	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
	million bushels																					
September 1 stocks	316.1	536.4	436.4	302.5	182.0	239.1	329.0	278.4	292.3	209.1	334.8	183.5	131.8	199.8	348.5	290.2	247.7	208.0	178.3	112.4	255.7	449.3
Production	2,099.1	1,942.6	1,937.7	1,548.8	1,923.8	1,925.9	1,986.6	2,190.4	1,869.7	2,514.9	2,174.3	2,380.3	2,688.8	2,741.0	2,653.8	2,757.8	2,890.7	2,756.1	2,453.7	3,123.7	3,063.2	3,188.2
TOTAL	2,415.2	2,479.0	2,374.1	1,855.3	2,108.8	2,167.0	2,319.6	2,470.8	2,167.0	2,730.0	2,514.1	2,572.8	2,825.6	2,943.8	3,006.3	3,052.0	3,141.3	2,968.8	2,637.6	3,241.7	3,322.3	3,647.0
September-November																						
Crush	287.5	295.8	293.4	275.4	273.0	304.1	322.0	328.2	329.6	346.2	351.4	360.6	365.8	409.3	426.7	420.9	427.5	417.5	419.4	427.4	442.4	459.2
Export	166.5	216.5	260.8	138.3	168.5	120.1	167.1	235.9	176.0	230.9	233.6	289.7	365.3	268.5	297.8	315.5	348.6	320.4	385.7	405.8	312.6	373.8
Seed, residual	21.5	10.1	64.6	74.8	56.6	58.8	51.5	70.7	79.8	50.9	95.7	97.4	66.9	78.5	98.9	75.6	89.6	112.3	140.5	99.3	63.2	104.7
TOTAL	455.4	522.4	618.8	488.5	498.1	483.0	540.6	634.8	585.4	628.0	681.7	747.7	826.2	758.8	823.4	812.0	865.7	850.2	945.6	932.4	818.2	937.7
December 1 stocks	1,959.8	1,958.6	1,755.3	1,366.8	1,610.7	1,684.0	1,779.0	1,836.0	1,573.6	2,102.0	1,833.4	1,825.1	1,999.4	2,186.4	2,182.7	2,240.0	2,275.6	2,115.4	1,888.7	2,304.6	2,501.4	2,701.4
Crush	281.9	320.1	317.3	286.3	304.3	301.4	323.1	335.2	327.2	371.8	359.0	400.7	443.1	408.6	408.1	417.9	447.6	422.0	423.2	436.2	437.2	449.5
Export	270.9	233.7	258.9	197.0	217.0	179.7	259.6	255.9	212.7	283.5	278.7	333.1	306.4	243.1	315.4	338.4	422.7	425.5	335.1	400.2	311.4	387.0
Seed, residual	35.7	63.8	33.0	-6.7	33.9	12.8	19.6	29.3	12.1	76.5	5.3	35.5	46.9	77.0	63.2	79.8	69.3	66.9	25.9	88.3	84.4	79.9
TOTAL	588.5	617.6	609.2	476.6	555.2	493.9	602.3	620.4	552.0	731.8	643.0	769.3	796.5	728.7	786.7	836.1	939.6	914.4	784.2	924.7	833.0	916.4
March 1 stocks	1,371.3	1,339.0	1,146.1	890.2	1,055.5	1,190.1	1,177.3	1,215.6	1,021.6	1,370.2	1,190.4	1,055.8	1,202.9	1,457.3	1,396.0	1,403.9	1,336.0	1,202.0	905.8	1,381.4	1,669.2	1,786.9
Crush	262.3	297.2	308.3	270.1	290.7	295.5	304.0	325.4	320.4	361.7	334.0	355.7	404.9	396.4	373.9	405.4	429.6	400.2	359.5	430.7	431.3	452.6
Export	226.4	159.3	185.0	135.5	153.2	146.9	148.2	186.7	120.6	216.6	188.5	165.9	120.0	161.9	205.8	220.8	155.0	194.4	117.6	211.2	185.5	220.8
Seed, residual	33.7	45.7	-2.5	20.1	15.7	24.2	29.4	20.1	25.3	0.0	44.9	34.3	84.4	50.4	58.9	69.5	66.5	6.3	19.1	41.1	62.7	23.9
TOTAL	522.4	502.2	490.8	425.7	459.6	466.6	481.6	532.2	466.3	578.3	567.4	555.9	609.2	608.7	621.8	695.7	651.1	600.9	496.2	683.1	679.5	697.3
June 1 stocks	848.9	836.8	655.3	464.5	595.9	723.5	695.7	683.4	555.3	791.9	622.8	499.9	593.7	848.6	774.4	708.2	684.9	602.4	410.6	699.3	990.7	1,091.1
Crush	241.1	265.5	255.5	225.8	278.4	285.9	304.6	290.0	298.4	325.5	324.9	318.7	353.2	375.4	370.1	395.8	395.0	375.6	327.6	401.8	428.0	445.1
Export	76.3	147.4	97.6	56.2	84.2	110.4	109.0	91.0	79.7	107.0	150.5	93.0	78.7	127.5	171.6	121.3	137.2	104.1	48.5	85.5	137.7	136.4
Seed, residual	-4.9	-12.5	0.3	0.5	-5.8	-1.8	3.1	10.1	-31.9	24.6	-35.2	-43.6	-37.9	-1.3	-55.0	-56.6	-55.3	-54.7	-71.0	-41.6	-23.2	-58.7
TOTAL	312.5	400.4	352.8	282.5	356.8	394.5	416.7	391.1	346.2	457.1	439.6	368.1	393.9	501.6	486.7	460.5	476.9	425.0	299.1	445.8	542.4	522.8
September 1 stocks	536.4	436.4	302.5	182.0	239.1	329.0	278.4	292.3	209.1	334.8	183.5	131.8	199.8	348.5	290.2	247.7	208.0	178.3	112.4	255.7	449.3	572.8
Annual																						
Crush	1,052.8	1,178.7	1,174.5	1,057.6	1,146.4	1,186.9	1,253.7	1,278.8	1,275.6	1,405.2	1,369.4	1,435.7	1,595.1	1,589.7	1,578.8	1,650.0	1,699.7	1,615.3	1,529.7	1,696.1	1,738.9	1,806.4
Export	740.1	756.9	801.7	527.0	622.9	557.1	683.9	769.5	589.0	838.0	851.2	881.7	870.4	801.0	973.8	995.0	1,063.5	1,045.0	887.2	1,102.7	947.2	1,118.0
Seed, residual	85.9	107.0	95.4	88.7	100.4	94.0	103.6	130.2	85.3	152.0	110.4	123.6	160.3	204.6	166.2	168.3	170.1	130.2	108.5	187.2	186.9	149.8
TOTAL	1,878.8	2,042.6	2,071.6	1,673.3	1,869.7	1,838.0	2,041.2	2,178.5	1,949.9	2,397.0	2,330.9	2,441.0	2,625.8	2,595.3	2,718.8	2,803.1	2,933.3	2,790.5	2,525.5	2,986.0	2,873.0	3,074.2

Table 9. South American Soybean Area, Yield and, Production, 1988 to Date

Year	Brazil			Argentina			Paraguay		
	Area	Yield	Production	Area	Yield	Production	Area	Yield	Production
	mil. ha.	t/ha.	mil.t	mil. ha.	t/ha.	mil. t.	mil. ha.	t/ha.	mil. t.
1988-89	12.15	1.94	23.60	4.00	1.63	6.50	0.85	1.90	1.62
1989-90	11.55	1.76	20.34	4.95	2.17	10.75	0.98	1.61	1.58
1990-91	9.75	1.62	15.75	4.75	2.42	11.50	0.89	1.46	1.30
1991-92	9.70	1.99	19.30	4.80	2.32	11.15	0.90	1.44	1.30
1992-93	10.63	2.12	22.50	4.90	2.32	11.35	0.98	1.79	1.75
1993-94	11.44	2.16	24.70	5.40	2.30	12.40	1.05	1.71	1.80
1994-95	11.68	2.22	25.90	5.70	2.19	12.50	1.10	2.00	2.20
1995-96	10.95	2.21	24.15	5.98	2.08	12.43	1.10	2.18	2.40
1996-97	11.80	2.27	26.80	6.26	1.81	11.20	1.20	2.31	2.77
1997-98	13.00	2.50	32.50	6.95	2.80	19.50	1.20	2.49	2.99
1998-99	12.90	2.43	31.30	8.17	2.45	20.00	1.20	2.54	3.05
1999-00	13.60	2.51	34.20	8.58	2.47	21.20	1.15	2.52	2.90
2000-01	13.93	2.80	39.00	10.40	2.67	27.80	1.35	2.61	3.52
2001-02	16.35	2.66	43.50	11.40	2.63	30.00	1.45	2.45	3.55
2002-03	18.45	2.82	52.00	12.60	2.82	35.50	1.55	2.90	4.50
2003-04	21.52	2.37	51.00	14.00	2.36	33.00	1.75	2.23	3.91
2004-05	22.92	2.31	53.00	14.40	2.71	39.00	2.00	2.03	4.05
2005-06	22.23	2.56	57.00	15.20	2.66	40.50	2.43	1.50	3.64
2006-07	20.70	2.85	59.00	15.90	2.97	47.20	2.63	2.36	6.20
2007-08	22.00	2.82	62.00	16.80	2.80	47.00	2.60	2.38	6.20

Source: USDA, FAS

Table 10. Soybean Production by Country

Year	United States	Brazil ^a	Argentina ^a	Paraguay ^a	China	Other	World	All Foreign
million bushels								
1970	1,127	76	2	3	254	165	1,627	500
1971	1,176	135	3	4	290	126	1,734	558
1972	1,283	184	10	4	320	66	1,867	584
1973	1,547	289	18	7	367	64	2,292	745
1974	1,215	363	18	8	349	54	2,007	792
1975	1,547	413	26	10	367	46	2,409	862
1976	1,288	460	51	14	242	128	2,183	895
1977	1,762	350	99	12	266	154	2,643	881
1978	1,870	557	136	20	278	167	2,847	977
1979	2,261	376	132	21	274	191	3,255	994
1980	1,798	558	129	22	292	176	2,975	1,177
1981	1,989	471	152	22	342	186	3,162	1,173
1982	2,190	542	154	19	332	200	3,437	1,247
1983	1,636	571	257	20	359	213	3,056	1,420
1984	1,861	672	248	35	356	248	3,421	1,561
1985	2,099	518	268	22	386	272	3,565	1,466
1986	1,943	636	257	35	427	303	3,601	1,658
1987	1,938	662	356	40	457	359	3,812	1,874
1988	1,549	852	235	60	428	387	3,506	1,957
1989	1,924	747	395	58	376	445	3,945	2,020
1990	1,926	579	423	48	404	446	3,826	1,900
1991	1,987	709	410	48	357	435	3,946	1,959
1992	2,188	827	417	64	378	434	4,308	2,120
1993	1,871	908	456	66	563	454	4,318	2,447
1994	2,517	952	459	81	588	460	5,057	2,540
1995	2,177	887	457	88	496	487	4,591	2,415
1996	2,380	1,003	412	102	486	474	4,857	2,477
1997	2,689	1,194	717	110	551	545	5,806	3,117
1998	2,741	1,150	735	112	557	577	5,872	3,131
1999	2,654	1,257	779	107	525	527	5,875	3,221
2000	2,758	1,433	1,021	129	566	525	6,432	3,674
2001	2,891	1,598	1,102	130	566	506	6,793	3,902
2002	2,756	1,911	1,304	165	607	500	7,243	4,487
2003	2,454	1,874	1,212	144	565	613	6,862	4,408
2004	3,124	1,947	1,433	149	639	635	7,927	4,803
2005	3,063	2,094	1,488	134	601	720	8,100	5,037
2006	3,188	2,168	1,734	228	595	750	8,663	5,475
2007	2,598	2,278	1,727	228	536	753	8,120	5,522

^a Harvested in the spring of the following year.

Table 11. World Oilseed and Soybean Production

Year	Major Oilseeds			Soybeans		
	United States	Ex-United States	Total	United States	Ex-United States	Total
	million metric tons					
1977-78	56.5	93.7	150.2	47.95	23.98	71.93
1978-79	58.6	92.0	150.6	50.86	26.62	77.48
1979-80	72.4	98.1	170.5	61.72	31.79	93.51
1980-81	55.8	99.8	155.6	48.77	32.20	80.97
1981-82	64.0	105.5	169.5	54.13	31.93	86.06
1982-83	68.2	110.1	178.3	59.61	33.96	93.57
1983-84	50.4	115.1	165.5	44.52	38.64	84.16
1984-85	59.2	131.7	191.1	50.64	42.50	93.14
1985-86	65.4	130.8	196.2	57.13	39.92	97.05
1986-87	59.4	135.0	194.4	52.87	45.21	98.08
1987-88	60.6	150.0	210.6	52.75	51.06	103.81
1988-89	50.3	153.9	204.2	42.15	53.49	95.64
1989-90	59.3	153.1	212.4	52.35	55.02	107.37
1990-91	60.6	155.1	215.7	52.42	51.57	103.99
1991-92	64.3	160.0	224.3	54.07	53.31	107.38
1992-93	68.4	158.9	227.4	59.61	57.69	117.30
1993-94	59.5	168.4	227.9	50.92	66.58	117.50
1994-95	79.7	181.2	260.9	68.49	69.14	137.63
1995-96	69.1	190.6	259.7	59.24	65.72	124.96
1996-97	74.8	187.0	261.8	64.78	67.40	132.18
1997-98	83.1	203.9	287.0	73.18	84.90	158.07
1998-99	84.4	210.3	294.7	74.60	85.21	159.81
1999-00	82.3	221.1	303.4	72.22	87.68	159.90
2000-01	84.9	228.5	313.4	75.06	100.00	175.06
2001-02	89.8	235.3	325.1	78.67	106.20	184.87
2002-03	83.9	245.7	329.6	75.01	122.11	197.12
2003-04	76.6	258.3	334.9	66.78	119.97	186.75
2004-05	95.9	285.3	381.2	85.01	130.73	215.74
2005-06	95.5	296.3	391.8	83.37	137.07	220.44
2006-07	96.6	309.9	406.5	86.77	149.00	235.77
2007-08	80.00	312.00	392.00	70.71	150.29	220.99

¹WASDE October 2007 and earlier.

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